As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
1	Abamectin (consists of avermectin B1a and B1b)	71751-41-2	Agricultural products：Abamectin, 8,9-Z avermectin B1a	Pesticides & Veterinary Medicinal Products	Insecticide	16 membered macrolide	Inhibition of neural transmission	Negative	Tremor, Mydriasis	Oral(gavage)	Developmental neurotoxicity study	6 days of pregnancy - 21 days postnatal	Rat	Low body weight：Offspring	LOAEL: 0.12 mg/kg bw per day	ADI: 0.0006 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	(a)Oral(gavage) (b)Oral(feed)	(a)Acute neurotoxicity study (b)Subacute and Chronic toxicity study	(a)Rat (b)Dog	(a)Reduced leg spread reflex (b)Tonic convulsion, Loss of pupillary reflex, Salivation, Ataxic gait, Vomiting, Anorexia	NOAEL: 0.5 mg/kg bw per day	0.005 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150623388&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150623388&fileId=201	2015/12/22	—
2	Acephate	30560-19-1	Agricultural and livestock products：Acephate, Methamidophos	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%), Blood(Anemia), Nasal cavity(Degeneration ／ Regeneration of olfactory epithelium) ／ Tumorigenesis of nasal cavity：Rat, Increased incidence of liver tumor：Female mouse ／ Decreased number of implantation：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of brain and erythrocyte ChE activity(more than 20%)	NOAEL: 0.24 mg/kg bw per day	ADI: 0.0024 mg/kg bw	SF:100	Oral(capsule)	Single-dose toxicity study	Human	No adverse effect observed at highest level(1 mg/kg bw)	NOAEL: 1 mg/kg bw	0.1 mg/kg bw	SF:10	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230713116&fileId=210	2024/2/14	—
3	Acequinocyl	57960-19-7	Agricultural products：Acequinocyl, 3-dodecyl-2-hydroxy-1,4-naphthoquinone	Pesticides	Insecticide (Acaricide)	Quinone	Inhibition of electron transfer system in photosynthesis	Negative	Blood clotting (coagulation) disorders	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Enlargement of eyeball：Male	NOAEL: 2.25 mg/kg bw per day	ADI: 0.022 mg/kg bw	SF:100	Oral(feed)	Two-generation reproductive activity study	Rat	Hemorrhage, Swelling, Death：Offspring	NOAEL: 7.3 mg/kg bw per day	0.073 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208245&fileId=210	2022/5/10	—
4	Acetamiprid	135410-20-7	・Agricultural products：Acetamiprid(Parent compound only) ・Livestock products：Acetamiprid, N1-[(6-chloro-3-pyridyl)methyl]-N2-cyanoacetamidine	Pesticides	Insecticide	Neonicotinoid	Action as an agonist at the nicotinic acetylcholine receptor, affecting the synapses	Negative	Suppressed body weight gain, Hepatocellular hypertrophy	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy：Male	NOAEL: 7.1 mg/kg bw per day	ADI: 0.071 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male	NOAEL: 10 mg/kg bw	0.1 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140702188&fileId=201	2014/12/16	—
5	Acetochlor	34256-82-1	Agricultural products：Acetochlor(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid biosynthesis	Negative	Liver(Hepatocellular atrophy, Hepatocellular necrosis), Thyroid(Increased organ weights), Kidney(Basophilic tubule、Chronic nephrosis), Testis(Seminiferous tubular degeneration, Polyarteritis), Central nervous system(Convulsion)／Increased liver, thyroid and nasal cavity tumor：Rat, Increased liver, lung, kidney and uterus tumo：Mouse／Reduced implantation rate：Rat	Oral(feed)	Carcinogenicity study	18 months	Mouse	Hyperplasia of bronchiolar epithelium：Male	NOAEL: 1.1 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071218003&fileId=201	2013/7/29	—
6	Acibenzolar-S-methyl	135158-54-2	Agricultural products：Acibenzolar-S-methyl(Parent compound only)	Pesticides	Fungicide	Benzothiazole	Induction of systemic acquired resistance	Negative	Suppressed body weight gain, Blood(Hemolytic anemia), Liver(Hemosiderin deposition in Kupffer cell), Spleen(Pigment deposition , Hemosiderin deposition, Extrextramedullary hematopoiesis)／External, internal and skeletal abnormalities：Rat(Fetus), Caudal vertebral anomaly：Rabbit(Fetus), High amplitude of auditory startle reaction：Rat(Offspring)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Pigment deposition of spleen	NOAEL: 7.77 mg/kg bw per day	ADI: 0.077 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain, Decreased feed intake：Maternal, Increased incidence of skeletal variation：Fetus	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011233&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20171026116&fileId=210	2018/2/13	The English report is the first edition published on March 24, 2015
7	Acifluorfen (Acifluorfen-sodium)	62476-59-9	Food products：Acifluorfen-sodium, Acifluorfen, Acifluorfen amine	Pesticides	Herbicide	Diphenyl ether	Inhibition of protoporphyrinogen oxidase activity	Negative	Liver(Hepatocellular hypertrophy), Kidney(Increased organ weights, Nephritis), Stomach(Ulcer), Blood(Anemia)／Increased incidence of liver tumors and forestomach papillomas：Mouse	Oral(feed)	Carcinogenicity study	2 years	Mouse	Increased ALP：Female	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080311018&fileId=021	2010/7/29	—
8	Acrinathrin	101007-06-1	Agricultural products：Acrinathrin(Parent compound only)	Pesticides	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Decreased feed intake, Skin(Crust formation) ／Increased incidence of benign ovarian granulosa and theca cell tumors：Female rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased feed intake	NOAEL: 1.61 mg/kg bw per day	ADI: 0.016 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hypothermia：Male, Suppressed body weight gain：Female	NOAEL: 3 mg/kg bw	0.03 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011230&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111012306&fileId=210	2018/2/27	—
9	Acynonapyr	1332838-17-1	・Agricultural products：Acynonapyr, 3-endo-[2-propoxy-4-(trifluoromethyl)phenoxy]-9-azabicyclo[3.3.1]nonane ・Fishery products：Acynonapyr(Parent compound only)	Pesticides	Insecticide (Acaricide)	—	Action on the inhibitory glutamate receptor	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Hepatocellular hypertrophy), Kidney(Basophilic tubule)、Accumulation/Vacuolization of foam cell(Lung, Lymph node, Thyroid and Liver)／Mesenteric lymph node hemangioma, Thyroid follicular cell adenoma：Male rat, Increased incidence of malignant lymphoma：Male mouse／Decreased number of implantation, Reduced copulation rate and Reduced conception rate：Rat	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased sternal bone marrow hematopoiesis	NOAEL: 4 mg/kg bw per day	ADI: 0.04 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170927101&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119012&fileId=210	2022/3/9	The English report is the first edition published on April 17, 2018
10	Afidopyropen	915972-17-7	・Agricultural products：Afidopyropen(Parent compound only) ・Livestock products：Afidopyropen, (2R)-3-carboxy-2-[(cyclopropylcarbonyl)oxy]-N,N,N-trimethylpropan-1-aminium	Pesticides	Insecticide	Pyropene	Suppression of eating behavior	Negative	Suppressed body weight gain, Heart(Myocardial vacuolation), Liver(Increased organ weights, Fatty degeneration), Cerebrum(Vacuolation of white matter and neuropil：Dog), Uterus(Hyperplasia of endometrium)／Increased incidence of uterine adenocarcinoma：Rat,／Decreased number of implantation and infant, Decrease of prolactin, Decreased ovary weight：Rat	Oral(capsule)	Chronic toxicity study	1 year	Dog	Hepatocellular hyaline droplet deposition	NOAEL: 8 mg/kg bw per day	ADI: 0.08 mg/kg bw	SF:100	Oral(feed)	Measurement of prolactin	Rat	Decrease of prolactin in the blood：Female	NOAEL: 18.2 mg/kg bw per day	0.18 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630143&fileId=210	2021/10/5	—
11	Alachlor	15972-60-8	Agricultural, livestock and fishery products：Alachlor(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid synthesis	Negative	Liver(Fatty degeneration), Eye(Retinopathy), Nasal cavity(Inflammation), Glandular stomach(Mucosal atrophy), Thyroid(Follicle epithelium cyst)／Increased glandular stomach, nasal cavity and thyroid tumors：Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Diarrhea, Mucous feces, Salivation	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120123009&fileId=201	2013/3/18	—
12	Aldicarb	116-06-3	Agricultural and livestock products：Aldicarb, Aldicarb sulfoxide, Aldicarb sulfone	Pesticides	Insecticide	Carbamate	Inhibition of cholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%)	Oral(unspecified)	Acute toxicity study	Single	Human	Inhibition of erythrocyte ChE activity(more than 20%)	LOAEL: 0.025 mg/kg bw	ADI: 0.00025 mg/kg bw	SF:100 interspecies variation:1 interindividual variation:10 LOAEL is used to estimate the ADI:10	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011999&fileId=201	2013/9/30	—
13	Aldoxycarb	1646-88-4	Agricultural products：Aldoxycarb(Parent compound only)	Pesticides	Insecticide	Carbamate	Inhibition of cholinesterase activity	Negative	Inhibition of erythrocyte ChE activity(more than 20%)	Oral(feed)	Chronic toxicity study	1 year	Dog	Inhibition of erythrocyte ChE activity(more than 20%)：Female	NOAEL: 0.11 mg/kg bw per day	ADI: 0.00036 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 insufficiency of data:3	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070821002&fileId=201	2011/7/14	—
14	Aldrin	309-00-2	Agricultural and livestock products：Aldrin, Dieldrin	Pesticides	Insecticide	Organochlorine	Effects on GABA receptors	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Distal tubular vacuolation), Nervous system(Tremor, Convulsion, Ataxia)／Increased thyroid follicular cell adenoma/carcinoma：Rat, Increased hepatocellular cartinoma：Mouse／Reduced incisor eruption time, Prolongation of testicular descent time：Rat and Hamster, Syndactyly, Cleft palate and Open eyelid：Mouse	Oral(feed)	Chronic toxicity study	2 years	Rat	Histopathological change：Liver	LOAEL: 0.025 mg/kg bw per day	TDI: 0.000025 mg/kg bw	UF:1000 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:10	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110612246&fileId=201	2013/8/5	Currently prohibited for production and use
15	Ametoctradin	865318-97-4	Agricultural and livestock products：Ametoctradin(Parent compound only)	Pesticides	Fungicide	Pyrimidylamine	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 273 mg/kg bw per day	ADI: 2.7 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190123007&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220824140&fileId=210	2022/10/26	The English report is the second edition published on July 9, 2019

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
16	Ametryn	834-12-8	Agricultural products：Ametryn(Parent compound only)	Pesticides	Herbicide	Triazine	—	Negative	Increased testicular interstitial cell tumors：Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased AST and ALT	NOAEL: 7.2 mg/kg bw per day	ADI: 0.072 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030060&fileId=06_001_001	2007/9/13	—
17	Aminocyclopyrachlor	858956-08-8	Agricultural products：Aminocyclopyrachlor(Parent compound only)	Pesticides	Herbicide	Pyrimidinecarboxylic acid	Inhibition of cell division	Negative	Suppressed body weight gain	Oral(feed)	Two-generation reproductive activity study	—	Rat	Suppressed body weight gain：Male parent	NOAEL: 91.9 mg/kg bw per day	ADI: 0.91 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20161018122&fileId=1204	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20161018122&fileId=201	2017/5/23	—
18	Aminoethoxyvinylglycine	49669-74-1	Agricultural products：Aminoethoxyvinyl glycine hydrochloride(Parent compound only)	Pesticides	Plant Growth Regulator	—	Inhibition of ACC synthase	Negative	Liver(Periportal hepatocellular vacuolation), Testis(Atrophy)／Increased incidence of testis interstitial cell tumor：Male rat, Increased incidence of adrenal pheochromocytoma：Female rat／Reduced sperm motility：Male rat, Defect of lobe：Rabbit	Oral(unspecified)	Developmental toxicity study	Organogenesis period	Rabbit	Defect of right lobe：Fetus	NOAEL: 0.2 mg/kg bw per day	ADI: 0.0002 mg/kg bw	SF:1000 interspecies variation:10 interindividual variation:10 insufficient number of animals for chronic toxicity study and carcinogenicity study:10	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080311019&fileId=201	2014/1/20	—
19	Amisulbrom	348635-87-0	・Agricultural products：Amisulbrom(Parent compound only) ・Livestock products：Amisulbrom, 3-bromo-6-fluoro-2-methyl-1-(1H-1,2,4-triazole-3-ylsulfonyl) indol, 3-bromo-6-fluoro-2-hydroxymethyl-1-(1H-1,2,4-triazole-3-ylsulfonyl) indol, 6-(3-(3-bromo-6-fluoro-2-methylindol-1-ylsulfony)-1,2,4-triazole-1-yl)-3,4,5-trihydroxy-tetrahydro-2H-pyran-2-carboxylic acid	Pesticides	Fungicide	Sulfamoyltriazole	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Renal tubular lipofuscin deposition), Stomach(Chronic inflammation ：Rat)／Increased hepatocellular adenoma：Rat and Male mouse, Forestomach tumor：Female rat	Oral(gavage)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220713111&fileId=210	2022/10/12	—
20	Amitraz	33089-61-1	Agricultural products：Amitraz, N-2,4-dimethylphenyl-N-methylformamidine	Pesticides & Veterinary Medicinal Products	Insecticide (Acaricide)	—	Excess production of cAMP	Negative	Central nervous system inhibition／Increased incidence of reticulum cell tumors(Lymph node) and liver tumors：Female mouse	Oral(gavage)	Chronic toxicity study	2 years	Dog	Central nervous system inhibition	NOAEL: 0.25 mg/kg bw per day	ADI: 0.0025 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030057&fileId=06_001_001	2007/5/17	—
21	Amitrole	61-82-5	Agricultural products：Amitrole(Parent compound only)	Pesticides	Herbicide	Triazole	Inhibition of carotenoid biosynthesis	Negative	Thyroid(Hyperplasia of follicular cell)／Increased incidence of thyroid follicular cell adenoma：Rat	Oral(feed)	Two-generation reproductive activity study	—	Rat	Hyperplasia of thyroid follicular cell, Reduced copulation rate：Parent	NOAEL: 0.12 mg/kg bw per day	ADI: 0.0012 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071030001&fileId=021	2010/10/7	—
22	Asulam	3337-71-1	Agricultural and livestock products：Asulam(Parent compound only)	Pesticides	Herbicide	Sulfanilamide ／Carbamate	Inhibition of 7,8-dihydropteroate synthase	Negative	Suppressed body weight gain, Thyroid(Hypertrophy of follicular epithelial cell)／Adrenal pheochromocytoma：MaleRat, Leydig cell tumor：Mouse／Decreased number of infant：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hypertrophy of thyroid follicular epithelial cell：Male	NOAEL: 36 mg/kg bw per day	ADI: 0.36 mg/kg bw	SF:100	Oral(gavage)	Chronic toxicity study	Dog	Vomiting	NOAEL(for potential adverse effects of a single oral administration): 300 mg/kg bw per day	3 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820278&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820278&fileId=201	2014/10/21	—
23	Azimsulfuron	120162-55-2	Agricultural products：Azimsulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Centrilobular hepatocellular hypertrophy), Pancreas(Hypertrophy of acinar cell), Increased extramedullary hematopoiesis of spleen	Oral(feed)	Two-generation reproductive activity study	—	Rat	Decreased body weight：Parent	NOAEL: 9.59 mg/kg bw per day	ADI: 0.095 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070410004&fileId=002	2009/4/9	—
24	Azinphos-methyl	86-50-0	Agricultural products：Azinphos-methyl(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%)	Oral(feed)	Chronic toxicity study	1 year	Dog	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.149 mg/kg bw per day	ADI: 0.0014 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080909001&fileId=002	2009/5/28	—
25	Azocyclotin ※1	41083-11-8	Agricultural products：Azocyclotin, Cyhexatin	Pesticides	Insecticide	Organotin	—	Negative	Suppressed body weight gain, Decreased feed intake, Gastrointestine(Irritative lesion)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 0.26 mg/kg bw per day	ADI: 0.0026 mg/kg bw(as a group ADI of Azocyclotin and Cyhexatin)	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071030005&fileId=201	2013/2/4	—
26	Azoxystrobin	131860-33-8	Agricultural, livestock and fishery products：Azoxystrobin(Parent compound only)	Pesticides & Additives	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Blood(Anemia), Biliary tract(Choledochus dilatation, Hyperplasia of biliary tract epithelium)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 18.2 mg/kg bw per day	ADI: 0.18 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Decreased feed intake：Maternal	NOAEL: 150 mg/kg bw per day	1.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya19073104502&fileId=213	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya19073104502&fileId=210	2020/3/10	—
27	Bendiocarb	22781-23-3	Agricultural products：Bendiocarb(Parent compound only)	Pesticides	Insecticide	Carbamate	Inhibition of cholinesterase activity	Negative	Inhibition of whole blood ChE activity(more than 20%), Lenticular opacity	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased lenticular opacity：Male	NOAEL: 0.35 mg/kg bw per day	ADI: 0.0035 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080311028&fileId=002	2009/8/27	—
28	Benfluralin	1861-40-1	Agricultural products：Benfluralin(Parent compound only)	Pesticides	Herbicide	Dinitroaniline	Inhibition of cell division	Negative	Liver(Pigment deposition in hepatocyte and sinusoidal cell, Hepatocellular hypertrophy), Kidney(Urologic syndrome, Hyaline droplet formation)／Increaced thyroid follicular cell adenomas/carcinoma：Rat, Increased hepatocellular adenoma/carcinoma：Male rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hyaline droplet formation of kidney	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325020&fileId=021	2010/10/14	—
29	Benfuracarb	82560-54-1	・Agricultural products：Benfuracarb, Carbofuran, 3-hydroxy-carbofuran(including conjugated form) ・Fishery products：Benfuracarb, Carbofuran	Pesticides	Insecticide	Carbamate	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Suppressed body weight gain ／ Decreased viability rate：Rat offspring	Oral(feed)	Subacute toxicity study	90 days	Dog	Thymic involution	NOAEL: 0.89 mg/kg bw per day	ADI: 0.0089 mg/kg bw	SF:100	Oral(feed)	Subacute neurotoxicity study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	LOAEL: 1.84 mg/kg bw per day	0.0092 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110210006&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110210006&fileId=210	2020/2/4	The lowest value of LOAEL for metabolite B (carbofuran), 0.03 mg/kg bw obtained in the comprehensive evaluation on ChE activity inhibition in rats, was lower than that of benfuracarb. FSCJ specified an ADI and an ARfD for the metabolite B (carbofuran) as 0.00015 mg/kg bw/day and 0.00015 mg/kg bw respectively, applying a safety factor of 200 (10 for interspecies difference, 10 for Interindividual difference, an additional factor of 2 for using LOAEL) to the LOAEL.

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
30	Benfuresate	68505-69-1	Food products：Benfuresate(Parent compound only)	Pesticides	Herbicide	Benzofuranylalkylsulfonate	Inhibition of long chain fatty acid synthesis	Negative	Kidney(Renal tubular degeneration, Renal papillary necrosis, Hyaline droplet formation)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 2.63 mg/kg bw per day	ADI: 0.026 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2007101200 4&fileId=002	2008/4/24	–
31	Benoxacor	98730-04-2	Agricultural products：Benoxacor(Parent compound only)	Pesticides	Herbicide Safeners	–	Acceleration of drug metabolism	Negative	Forestomach(Epithelial hyperplasia, Epithelial hyperkeratosis), Liver(Centrilobular hepatocellular hypertrophy), Blood(Anemia：Dog)／Increased incidence of forestomach squamous cell papilloma/carcinoma：Rat and Mouse／Low body weight, Increased incidence of skeletal, internal variation, Visceral anomaly：Rat(Fetus), Increased incidence of skeletal anomaly：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy and vacuolization：Male	NOAEL: 0.4 mg/kg bw per day	ADI: 0.004 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2008031102 7&fileId=021	2010/9/30	–
32	Bensulfuron-methyl	83055-99-6	Food products：Bensulfuron-methyl(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Hepatocellular hypertrophy)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased absolute/relative liver weight	NOAEL: 19.9 mg/kg bw per day	ADI: 0.19 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2008032501 9&fileId=021	2010/10/21	–
33	Bensultap ※2	17606-31-4	Agricultural products：Bensultap, Nereistoxin	Pesticides	Insecticide	Nereistoxin	Inhibition of acetylcholinesterase activity	Negative	Suppressed body weight gain, Tremor, Blood(Anemia), Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy) ／ Increased incidence of testicular interstitial cell tumor：Rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain	NOAEL: 2.52 mg/kg bw per day	ADI: 0.025 mg/kg bw	SF:100	Oral(gavage)	Pharmacological study	Mouse	Tremor	NOEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2018121014 2&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2023083114 3&fileId=210	2024/1/17	Evaluated as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate. Please see #61. The English report is the first edition published on June 4, 2019
34	Bentazone (Bentazone sodium)	25057-89-0 (as Bentazone), 50723-80-3 (as Bentazone sodium)	Agricultural and livestock products：Bentazone(Parent compound only)	Pesticides	Herbicide	Heterocyclic	Inhibition of Hill reaction	Negative	Suppressed body weight gain, Blood(Prolonged coagulation time), Kidney(Increased BUN, Increased organ weight)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased water intake and BUN, Prolonged coagulation time	NOAEL: 9 mg/kg bw per day	ADI: 0.09 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male	NOAEL: 50 mg/kg bw	0.5 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya0100624494 &fileId=210	2021/6/22	–
35	Benthiavalicarb-isopropyl	177406-68-7	Agricultural products：Benthiavalicarb-isopropyl(Parent compound only)	Pesticides	Fungicide	Aminoacidamidecarbamate	Inhibition of phospholipid biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hyperplasia of follicular epithelial cell), Blood(Anemia)／Increased hepatic tumor：Rat and Mouse, Increased uterus tumor：Rat, Increased thyroid tumor：Mouse	Oral(feed)	Two-generation reproductive activity study	–	Rat	Hepatocellular hypertrophy：Male parent	NOAEL: 6.9 mg/kg bw per day	ADI: 0.069 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2021032033 &fileId=211	2021/6/15	–
36	Benzobicyclon	156963-66-5	Agricultural products：Benzobicyclon(Parent compound only)	Pesticides	Herbicide	Bicyclooctane	Inhibition of carotenoid biosynthesis	Negative	Liver(Increased absolute/relative weight), Kidney(Increased absolute/relative weight, Reduced urine pH)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	No adverse effect observed at highest level(3.43 mg/kg bw per day)	NOAEL: 3.43 mg/kg bw per day	ADI: 0.034 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2008103004 2&fileId=006_001_001	2008/3/13	–
37	Benzofenap	82692-44-2	Agricultural products：Benzofenap(Parent compound only)	Pesticides	Herbicide	Pyrazole	Inhibition of chlorophyll synthesis	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Increased organ weight)／Reduced conception rate	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Positive of bilirubin in urine test	NOAEL: 0.203 mg/kg bw per day	ADI: 0.002 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2010091353 1&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2010091353 1&fileId=201	2015/8/18	–
38	Benzovindiflupyr	1072957-71-1	Agricultural products：Benzovindiflupyr(Parent compound only)	Pesticides	Fungicide	Pyrazolecarboxamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Centrilobular hepatocellular hypertrophy：Rat), Large intestine(Mucosal hyperplasia：Mouse)／Increased number of occurrence of thyroid follicular cell adenoma：Male rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Centrilobular hepatocellular hypertrophy	NOAEL: 4.88 mg/kg bw per day	ADI: 0.048 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Abnormal gait, Listless, Piloerection, Hypothermia, Muscle weakness of forelimb, Decreased locomotor activity, Decreased feed intake：Female	NOAEL: 10 mg/kg bw	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2020021302 8&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2020021302 8&fileId=210	2020/9/15	–
39	Benzpyrimoxan	1449021-97-9	・Agricultural products：Benzpyrimoxan, 5-(1,3-dioxan-2-yl)-4-[4-(trifluoromethyl)benzyloxy]-pyrimidine-2-ol ・Livestock and fishery products：Benzpyrimoxan (Parent compound only)	Pesticides	Insecticide	–	Abnormal molting	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Increased organ weight, Hepatocellular hypertrophy), Kidney(Obstructive nephropathy, Renal pelvic epithelial hyperplasia：Rat and Mouse)	Oral(feed)	Chronic toxicity study	1 year	Dog	Hepatocellular pigment deposition	NOAEL: 2.68 mg/kg bw per day	ADI: 0.026 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight and feed intake, Suppressed body weight gain：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2019061902 7&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2019061902 7&fileId=210	2020/1/28	–
40	Benzyladenine (Benzylaminopurine)	1214-39-7	Agricultural products：Benzyladenine(Parent compound only)	Pesticides	Plant Growth Regulator	–	Promotion of protein synthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight), Kidney(Tubular epithelium degeneration：Dog)	Oral(gavage)	Developmental toxicity study	6 - 19 days of pregnancy	Rabbit	Suppressed body weight gain：Maternal	NOAEL: 6.25 mg/kg bw per day	ADI: 0.062 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2010032335 4&fileId=210	2014/4/8	–
41_1	Bicyclopyrone	352010-68-5	Agricultural and livestock products：Bicyclopyrone(Parent compound only)	Pesticides	Herbicide	Triketone	Inhibition of 4-HPPDase	Negative	Eye(Corneal opacity), Liver(Centrilobular hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell), Nervous system(Chromatolysis, Swelling：Dog)／Increased incidence of Corneal squamous cell carcinoma/papilloma：Male rat／Costochondral malformation, Ventricular septal defect, Cervical anomaly：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Localized hyperplasia of thyroid follicular cell：Male rat	LOAEL: 0.28 mg/kg bw per day	ADI: 0.00028 mg/kg bw	SF:1000 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:10	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased total activity and ambulatory movement	NOAEL: 200 mg/kg bw	2 mg/kg bw (for general population)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2015021627 9&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2017072108 4&fileId=201	2017/9/26	The English report is the first edition published on November 10, 2015
41_2	Bicyclopyrone	352010-68-5	Agricultural and livestock products：Bicyclopyrone(Parent compound only)	Pesticides	Herbicide	Triketone	Inhibition of 4-HPPDase	Negative	Eye(Corneal opacity), Liver(Centrilobular hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell), Nervous system(Chromatolysis, Swelling：Dog)／Increased incidence of Corneal squamous cell carcinoma/papilloma：Male rat／Costochondral malformation, Ventricular septal defect, Cervical anomaly：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Localized hyperplasia of thyroid follicular cell：Male rat	LOAEL: 0.28 mg/kg bw per day	ADI: 0.00028 mg/kg bw	SF:1000 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:10	Oral(gavage)	Developmental toxicity study	Rabbit	Extra rib and costa cartilage：Fetus	NOAEL: 1 mg/kg bw per day	0.01 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2015021627 9&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2017072108 4&fileId=201	2017/9/26	The English report is the first edition published on November 10, 2015
42	Bifenazate	149877-41-8	Agricultural and livestock products：Bifenazate(Parent compound only)	Pesticides	Insecticide (Acaricide)	Hydrazide	–	Negative	Blood(Anemia), Liver(Centrilobular hepatocellular hypertrophy)	(a)(b)Oral(feed)	(a)Chronic toxicity study (b)Combined chronic toxicity/carcinogenicity study	(a)1 year (b)2 years	(a)Dog (b)Rat	(a)Suppressed body weight gain, Decreased RBC (b)Increased splenic pigment deposition, Suppressed body weight gain, Decreased RBC	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight, Decreased feed intake：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya2018041801 7&fileId=210	2018/9/4	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
43	Bifenthrin	82657-04-3	Agricultural and livestock products：Bifenthrin(Parent compound only)	Pesticides	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Nervous system(Tremor)／Increased incidence of urinary bladder leiomyosarcoma (submucosal tumor)：Male mouse	Oral(gavage)	Developmental toxicity study	6 - 15 days of pregnancy	Rat	Tremor：Maternal	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(capsule)	Subacute toxicity study	Dog	Tremor：Male	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220824144&fileId=210	2022/8/24	–
44	Bixafen	581809-46-3	・Agricultural products：Bixafen(Parent compound only) ・Livestock products：Bixafen, N-(3',4'-dichloro-5-fluorobiphenyl-2-yl)-3-(difluoromethyl)-1H-pyrazole-4-carboxamide	Pesticides	Fungicide	Pyrazolecarboxamide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell)／Increased retroesophageal right subclavian artery, Increased skeletal anomaly：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 1.98 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight, Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190619026&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190619026&fileId=210	2020/2/25	–
45	Boscalid	188425-85-6	Agricultural products：Boscalid(Parent compound only)	Pesticides	Fungicide	Anilide	Inhibition of electron transfer system in photosynthesis	Negative	Thyroid(Diffuse hypertrophy of follicular cell), Liver(Centrilobular hepatocellular hypertrophy)／Trend in increased thyroid follicular cell adenoma：Rat	Oral(feed)	Chronic toxicity study	2 years	Rat	Increased GGT：Male	NOAEL: 4.4 mg/kg bw per day	ADI: 0.044 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight and feed intake, Suppressed body weight gain：Maternal	NOAEL: 300 mg/kg bw per day	3 mg/kg bw	SF:100	Report https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20031117033&fileId=06_001_003	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20160511029&fileId=201	2016/9/27	The English report is the first edition published on May 20, 2004
46	Broflanilide	1207727-04-5	・Agricultural products：Broflanilide(Parent compound only) ・Livestock products：Broflanilide, 3-benzamide-N-[2-bromo-4-(perfluoropropane-2-yl)-6-(trifluoromethyl) pheny]-2-fluorobenzamide	Pesticides & Veterinary Medicinal Products	Insecticide	–	Disturbance of chloride channel	Negative	Suppressed body weight gain, Blood(Anemia：Rat), Adrenal gland(Increased organ weight, Cortical vacuolization), Ovary(Increased organ weight, Vacuolization of stromal cell：Rat), Uterus(Glandular hyperplasia：Rat)／Increased incidence of testicular interstitial cell tumor：Male rat, Increased incidence of total of endometrium adenoma, luteoma, theca cell tumor, granulosa tumor and sex cord stromal tumor：Female rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	1 year	Rat	Cortical vacuolization of adrenal gland：Male	NOAEL: 1.7 mg/kg bw per day	ADI: 0.017 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190220026&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20230308033&fileId=210	2023/10/4	The English report is the first edition published on October 8, 2019
47	Bromacil	314-40-9	Agricultural products：Bromacil(Parent compound only)	Pesticides	Herbicide	Uracil	Inhibition of Hill reaction	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Testis(Testis atrophy, Spermatocytic necrosis：Mouse)／Increased incidence of total of hepatocellular adenoma and carcinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 1.96 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20130612179&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20130612179&fileId=201	2016/5/17	–
48	Bromobutide	74712-19-9	Food products：Bromobutide, N-(α,α-dimethylbenzyl)-3,3-dimethylbutyramide	Pesticides	Herbicide	Amide	Inhibition of cell division	Negative	Liver(Increased organ weight)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain：Parent	NOAEL: 4 mg/kg bw per day	ADI: 0.04 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20081030030&fileId=06_001_001	2008/1/10	–
49	Buprofezin	953030-84-7	Agricultural, livestock and fishery products：Buprofezin(Parent compound only)	Pesticides	Insecticide	Thiadiazine	Inhibition of chitin synthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Thyroid(Increased organ weight, Hypertrophy of follicular epithelial cell)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hypertrophy and hyperplasia of follicular epithelial cell in thyroid	NOAEL: 0.9 mg/kg bw per day	ADI: 0.009 mg/kg bw	SF:100	(a)Oral(capsule) (b)Oral(gavage)	(a)Subacute toxicity study (b)Developmental toxicity study	(a)Dog (b)Rabbit	(a)Sedation, Slight ataxic gait (b)Decreased body weight, Trend in decreased feed intake：Maternal	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190319052&fileId=210	2019/6/18	–
50	Butachlor	23184-66-9	Agricultural and fishery products：Butachlor(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid synthesis	Negative	Liver(Hepatocellular hypertrophy), Kidney(Weight changing, Chronic nephrosis), Glandular stomach(mucosal atrophy), Nasal cavity(Hyperplasia of goblet cell), Thyroid(Hyperplasia), Blood(Anemia)／Increased incidence of stomach, thyroid and nose tumor：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Chronic nephrosis	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Suppressed body weight gain：Maternal	NOAEL: 49 mg/kg bw per day	0.49 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220928173&fileId=210	2023/11/1	–
51	Butamifos	36335-67-8	Food products：Butamifos(Parent compound only)	Pesticides	Herbicide	Organophosphorus	Inhibition of cell division	Negative	Inhibition of brain erythrocyte ChE activity(more than 20%)／Decreased number of offspring during lactation	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.8 mg/kg bw per day	ADI: 0.008 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20080401003&fileId=002	2009/2/12	–
52	Cadusafos	95465-99-9	Agricultural products：Cadusafos(Parent compound only)	Pesticides	Nematicide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain, Inhibition of erythrocyte ChE activity(more than 20%)：Parent	NOAEL: 0.025 mg/kg bw per day	ADI: 0.00025 mg/kg bw	SF:100	Oral(gavage)	ChE inhibitor study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.5 mg/kg bw	0.005 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20210209014&fileId=210	2021/5/18	–
53	Cafenstrole	125306-83-4	・Agricultural products：Cafenstrole(Parent compound only) ・Fishery products：Cafenstrole, 3-(2,4,6-trimethylphenylsulfonyl)-1,2,4-triazole	Pesticides	Herbicide	Triazole	Inhibition of very long chain fatty acid biosynthesis	Negative	Small intestine(Vacuolation of jejunal villus epithelium, Opalescence change of jejunal mucosa), Liver(Decreased absolute/relative weight, Fatty degeneration of biliary epithelial cell), Degeneration of nerve fiber	Oral(capsule)	Chronic toxicity study	1 year	Dog	Decreased Hb, Ht and RBC：Female	NOAEL: 0.3 mg/kg bw per day	ADI: 0.003 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20081030037&fileId=06_001_001	2008/2/21	–
54_1	Captan	133-06-2	Agricultural and livestock products：Captan(Parent compound only)	Pesticides	Fungicide	Phthalimide	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Small intestine(Duodenal mucosal hyperplasia：Mouse)／Duodenal adenoma and adenocarcinoma：Mouse／External anomaly, Internal anomary and Skeletal anomaly：Rabbit and Hamster	Oral(gavage)	Developmental toxicity study	7 - 19days of pregnancy	Rabbit	Suppressed body weight gain, Decreased body weight：Maternal, Skeletal variation：Fetus	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	Oral(unspecified)	Pharmacological study	Mouse	Reduced motor activity and Soft feces	NOEL: 300 mg/kg bw	3 mg/kg bw (for general population)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120123003&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20201111139&fileId=210	2021/2/16	The English report is the first edition published on March 7, 2017
54_2	Captan	133-06-2	Agricultural and livestock products：Captan(Parent compound only)	Pesticides	Fungicide	Phthalimide	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Small intestine(Duodenal mucosal hyperplasia：Mouse)／Duodenal adenoma and adenocarcinoma：Mouse／External anomaly, Internal anomary and Skeletal anomaly：Rabbit and Hamster	Oral(gavage)	Developmental toxicity study	7 - 19days of pregnancy	Rabbit	Suppressed body weight gain, Decreased body weight：Maternal, Skeletal variation：Fetus	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Increased of postimplantation loss rate and number of dead embryos：Maternal, External anomaly, Internal anomary and Skeletal anomaly：Fetus	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120123003&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20201111139&fileId=210	2021/2/16	The English report is the first edition published on March 7, 2017
55	Carbaryl	63-25-2	Agricultural and livestock products：Carbaryl(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Carbamate	Inhibition of acetylcholinesterase activity	Negative	Inhibition of ChE activity(more than 20%), Liver(Centrilobular hepatocellular hypertrophy), Kidney(Hyperplasia of pelvic transitional epithelium), Urinary bladder(Hyperplasia of transitional epithelial ：Rat, Protein like intracytoplasmic droplets in the transitional epithelium：Mouse) , Thyroid(Hypertrophy of follicular cell：Rat), Blood(Anemia：Mouse)	Oral(feed)	Carcinogenicity study	2 years	Mouse	Vascular tumors(Hemangiosarcomas)	LOAEL: 14.7 mg/kg bw per day	ADI: 0.0073 mg/kg bw	SF:2000 interspecies variation:10 interindividual variation:10 Carcinogenic LOAEL is used to estimate the ADI:20	Oral(gavage)	Acute/Subacute/Developmental neurotoxicity study and ChE inhibitor study	Rat	Inhibition of brain and erythrocyte ChE activity(more than 20%)	NOAEL: 1 mg/kg bw per day	0.01 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120918650&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120918650&fileId=210	2018/9/4	–
56	Carbofuran	1563-66-2	Agricultural and livestock products：Carbofuran, 3-hydroxy-carbofuran(including conjugated form)	Pesticides	Insecticide	Carbamate	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Suppressed body weight gain ／ Increased number of stillborn infant, Reduced survival rate of offspring, Developmental delay：Rat	Oral(gavage)	ChE inhibitor study	Single	Rat	Inhibition of brain ChE activity(more than 20%)：Juvenile rat(11 days postnatal)	LOAEL: 0.03 mg/kg bw	ADI: 0.00015 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	Oral(gavage)	ChE inhibitor study	Rat	Inhibition of brain ChE activity (more than 20%)：Juvenile and Mature rat, Inhibition of liver AChE activity (more than 20%)：Maternal, Inhibition of whole blood AChE activity(more than 20%)：Fetus	LOAEL: 0.03 mg/kg bw	0.00015 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20090209005&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20090209005&fileId=210	2020/2/4	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
57	Carbosulfan	55285-14-8	・Agricultural and livestock products：Carbosulfan, Carbofuran, 3-hydroxy-carbofuran(including conjugated form of either) ・Fishery products：Carbosulfan, Carbofuran	Pesticides	Insecticide	Carbamate	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Suppressed body weight gain, Eye(Iris atrophy, Retinal degeneration：Rat) ／ Reduced number of newborn offspring, Decreased survival rate at four days postnatal：Rat	Oral(gavage)	Acute neurotoxicity study	Single	Rat	Inhibition of erythrocyte and brain ChE activity(more than 20%)	NOAEL: 0.5 mg/kg bw	ADI: 0.005 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Inhibition of erythrocyte and brain ChE activity(more than 20%)	NOAEL: 0.5 mg/kg bw	0.005 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110210005&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110210005&fileId=210	2020/2/4	—
58	Carboxin	5234-68-4	・Agricultural products：Carboxin and its sulfoxide	Pesticides	Fungicide	—	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Chronic nephritis, Inflammatory and Degenerative changes)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	unspecified	Rat	Suppressed body weight gain, Increased BUN：Male	NOAEL: 0.8 mg/kg bw per day	ADI: 0.008 mg/kg bw	SF:100	—	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070306005&fileId=002	2008/9/25	—
59	Carpropamid	104030-54-8	Food products：Carpropamid(Parent compound only)	Pesticides	Fungicide	Cyclopropanecarboxamide	Inhibition of melanin biosynthesis	Negative	Liver(Increased absolute/relative weight, Hepatocellular hypertrophy)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased relative liver weight：Female	NOAEL: 1.43 mg/kg bw per day	ADI: 0.014 mg/kg bw	SF:100	—	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070522006&fileId=002	2007/12/13	—
60	Cartap hydrochloride ※2	15263-52-2	Agricultural products：Cartap hydrochloride, Cartap, Nereistoxin(including metabolites that are composed to Nereistoxin by hydrolysis/oxidization under alkaline condition)	Pesticides	Insecticide	Nereistoxin	Inhibition of acetylcholinesterase activity	Negative	Suppressed body weight gain, Tremor	Oral(gavage)	Chronic toxicity study	2 years	Monkey	Suppressed body weight gain	NOAEL: 3 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b)Pharmacological study	(a)Rat (b)Mouse	(a)Decreased length of hindlimb's stride：Female (b)Restlessness, Mydriasis and Hypothermia：Male	NOAEL: 10 mg/kg bw	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181210142&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210831143&fileId=210	2024/1/17	Evaluated as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate. Please see #61. The English report is the first edition published on June 4, 2019
61	Cartap hydrochloride, Thiocyclam hydrogen oxalate, Bensultap ※2	15263-52-2 (as Cartap hydrochloride), 31895-22-4 (as Thiocyclam hydrogen oxalate), 17606-31-4 (as Bensultap)	Agricultural products：Cartap hydrochloride, Cartap, Thiocyclam hydrogen oxalate, Thiocyclam, Bensultap, Nereistoxin(including metabolites that are composed to Nereistoxin by hydrolysis/oxidization under alkaline condition)	Pesticides	Insecticide	Nereistoxin	Inhibition of acetylcholinesterase activity	Negative	Suppressed body weight gain, Tremor, Convulsion, Blood(Anemia), Liver(Increased organ weights, Centrilobular hepatocellular hypertrophy) ／ Increased incidence of testicular interstitial cell tumors：Rat	Oral(feed)	Two-generation reproductive activity study	—	Rat	Suppressed body weight gain	NOAEL: 2.52 mg/kg bw per day (as Bensultap), 1.6 mg/kg bw per day (as Cartap hydrochloride)	ADI: 0.016 mg/kg bw (as a group ADI of Cartap hydrochloride, Thiocyclam hydrogen oxalate and Bensultap)	SF:100	(a)(b)(c) Oral(gavage)	(a)Acute neurotoxicity study (b) Pharmacological study (c) Developmental toxicity study	(a)Rat (b)Mouse (c)Rabbit	(a)Decreased length of hindlimb's stride：Female (b)Restlessness, Mydriasis and Hypothermia：Male (c)Decreased body weight	NOAEL: (a)(b)10 mg/kg bw (as Cartap hydrochloride) (c)10 mg/kg bw per day (as Thiocyclam hydrogen oxalate), 10.1 mg/kg bw per day (as Cartap hydrochloride)	0.1 mg/kg bw (as a group ARfD of Cartap hydrochloride, Thiocyclam hydrogen oxalate and Bensultap)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181210142&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210831143&fileId=210	2024/1/17	The English report is the first edition published on June 4, 2019
62	Chinomethionat	2439-01-2	Agricultural products：Chinomethionat(Parent compound only)	Pesticides	Acaricide, Fungicide	Quinoxaline	Inhibition of enzyme activity	Negative	Hematopoietic system(Anemia, Extramedullary hematopoiesis in spleen), Liver(Hepatocellular degeneration, Kupffer cell accumulation), Testis(Oligospermia：Rat), Epididymis(Decreased number of spermatozoon：Rat)	Oral(feed)	Chronic toxicity study	1 year	Dog	Kupffer cell accumulation	NOAEL: 0.644 mg/kg bw per day	ADI: 0.0064 mg/kg bw	SF:100	(a)(b) Oral(unspecified)	(a)(b) Pharmacological study	(a)Mouse (b)Rabbit	(a)Reduced reactivity：Female (b)Reduced motility, Hypothermia, Decreased respiration, Lower blood pressure：Male	NOAEL: 150 mg/kg bw	1.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110325739&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180124152&fileId=210	2018/3/6	The English report is the first edition published on November 10, 2015
63	Chlorantraniliprole	500008-45-7	Agricultural, livestock and fishery products：Chlorantraniliprole(Parent compound only)	Pesticides	Insecticide	Anthranilicdiamide	Activating calcium release channels of ryanodine-sensitive intracellular	Negative	Liver(Centrilobular hepatocellular hypertrophy, Altered hepatocellular foci)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Centrilobular hepatocellular hypertrophy and Altered hepatocellular foci：Male	NOAEL: 158 mg/kg bw per day	ADI: 1.5 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	—	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20151114140&fileId=201	2017/4/18	—
64	Chlorethoxyfos	54593-83-8	Agricultural products：Chlorethoxyfos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%)	Oral(feed)	Chronic toxicity study	1 year	Dog	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.063 mg/kg bw per day	ADI: 0.00063 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080311020&fileId=002	2009/1/8	—
65	Chlorfenapyr	122453-73-0	Agricultural products：Chlorfenapyr(Parent compound only)	Pesticides	Insecticide (Acaricide)	Pyrrole	Conjugative inhibition of oxidative phosphorylation	Negative	Nervous system(Vacuolation of myelin sheath), Liver(Hepatocellular hypertrophy)	Oral(feed)	Chronic neurotoxicity study	1 year	Rat	Swelling of cerebellum and myelin sheath in the spinal cord：Male	NOAEL: 2.6 mg/kg bw per day	ADI: 0.026 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612155&fileId=201	2013/7/29	—
66	Chlorfluazuron	71422-67-8	Agricultural and livestock products：Chlorfluazuron(Parent compound only)	Pesticides	Insecticide	Benzoylurea	Inhibition of chitin synthesis	Negative	Liver(Increased organ weight, Increased Chol), Thyroid(Hyperplasia of C-cell：Rat)／Increased incidence of endometrial stromal sarcoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased T.Chol and E.Chol：Female	NOAEL: 3.3 mg/kg bw per day	ADI: 0.033 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718570&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230308031&fileId=210	2023/5/17	The English report is the first edition published on December 12, 2017
67	Chlormequat (Chlormequat chloride)	999-81-5	Agricultural products：Chlormequat(Parent compound only)	Pesticides	Plant Growth Regulator	—	Inhibition of gibberellin biosynthesis	Negative	Suppressed body weight gain, Nervous system(Tremor、Salivation)／Reduced conception rate, Decreased numbers of infant：Rat	(a)Oral(feed) (b)Oral(gavage)	(a)Chronic toxicity study (b)Developmental toxicity study	(a)1 year (b)7 - 19 days of pregnancy	(a)Dog (b)Rabbit	(a)Salivation (b)Death, Suppressed body weight gain：Maternal	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(feed)	Chronic toxicity study	Dog	Diarrhea, Salivation	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=Kya20170524028&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=Kya20170524028&fileId=210	2017/12/12	—
68	Chloropicrin (Trichloronitromethane)	76-06-2 (as trichloronitromethane)	Agricultural products：Chloropicrin(Parent compound only)	Pesticides	Fungicide, Insecticide, Herbicide	—	Inhibition of SH-enzymes	Negative	Forestomach(Hyperplasia/Hyperkeratosis of mucosal epithelium), Blood(Anemia) ／ Increased incidence of bronchiolo-alveolar adenoma, bronchiolo-alveolar adenocarcinoma and harderian gland adenoma：Mouse, Increased incidence of squamous epithelium papilloma and papillary carcinoma of forestomach：Female mouse	Oral(capsule)	Chronic toxicity study	1 year	Dog	Vomiting	NOAEL: 0.1 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Reduced motor activity：Male, Decreased locomotor activity：Female	NOAEL: 50 mg/kg bw	0.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170615051&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201111140&fileId=210	2021/1/12	The English report is the first edition published on December 25, 2018
69	Chlorothalonil	1897-45-6	・Agricultural products：Chlorothalonil(Parent compound only) ・Livestock products：Chlorothalonil, 2,5,6-trichloro-4-hydroxyisophthalonitrile(Metabolite 1)	Pesticides	Insecticide	Phenyl	Action on protoplasm and enzyme protein	Negative	・Chlorothalonil：Kidney(Hyperplasia of proximal tubular epithelium), Forestomach(Hyperplasia of mucosal epithelium, Hyperkeratosis)／Increased incidence of forestomach papilloma/squamous cell carcinoma and renal tubular adenoma/adenocarcinoma：Rat and Mouse ・Metabolite 1：Blood(Anemia), Liver(HepatHepatocellular necrosis：Dog), Kidney(Tubular degeneration：Dog, Increased organ weight)	(a)(b)Oral(feed)	(a)Carcinogenicity study (b)Chronic toxicity study	(a)2 years (b)1 year	(a)Mouse (b)Dog	(a)Hyperkeratosis of forestomach mucosa, Hyperplasia of forestomach squamous：Male (b)Decreased RBC：Male	NOAEL: (a)1.86 mg/kg bw per day (as Chlorothalonil) (b)0.83 mg/kg bw per day (as Metabolite 1)	ADI: (a)0.018 mg/kg bw (as Chlorothalonil) (b)0.0083 mg/kg bw (as Metabolite 1)	SF:100	(a)(b) Oral(gavage)	(a)Single-dose toxicity study and histopathologic examination for kidney (b)Developmental toxicity study	(a)Rat (b)Rabbit	(a)Vacuolation of proximal tubular epithelium cell：Female (b)Increased number of early resorption：Fetus	NOAEL: (a)60 mg/kg bw (as Chlorothalonil) (b)2.5 mg/kg bw per day (as Metabolite 1)	(a)0.6 mg/kg bw (as Chlorothalonil) (b)0.025 mg/kg bw (as Metabolite 1)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110922193&fileId=210	2018/3/27	—
70	Chlorpropham	101-21-3	Agricultural and livestock products：Chlorpropham(Parent compound only)	Pesticides	Herbicide, Plant Growth Regulator	Carbamate	Inhibition of cell division	Negative	Blood(Hemolytic anemia、Methemoglobinemia), Thyroid(Diffuse hyperplasia of follicular epithelial cell：Dog)／Increased incidence of testicular interstitial cell tumor：Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased absolute/relative thyroid weight	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Single-dose toxicity study	Dog	Listless, Vomiting, Strong pulse	NOAEL: 50 mg/kg bw	0.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612346&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612346&fileId=201	2015/6/9	—

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
71	Chlorpyrifos	2921-88-2	Agricultural, livestock and fishery products：Chlorpyrifos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%)	(a)(b)(d)Oral(feed) (c)Oral(gavage)	(a)Combined chronic toxicity/carcinogenicity study (b)Two-generation reproductive activity study (c)Developmental toxicity study (d)Chronic toxicity study	(a)2 years (b)-- (c)6 - 15 days of pregnancy (d)1 year/2 years	(a)(b)Rat (c)Mouse (d)Dog	(a)Inhibition of erythrocyte ChE activity(more than 20%)：Male, Inhibition of brain ChE activity(more than 20%)：Female (b)Inhibition of erythrocyte ChE activity(more than 20%)：Parent (c)Inhibition of erythrocyte ChE activity(more than 20%)：Maternal (d)Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.1 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	Oral(unspecified)	Single-dose toxicity study	Human	Inhibition of erythrocyte AChE activity(more than 20%)	NOAEL: 1 mg/kg bw	0.1 mg/kg bw	SF:10	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170721083&fileId=210	2018/7/24	--
72	Chromafenozide	143807-66-3	Agricultural and fishery products：Chromafenozide(Parent compound only)	Pesticides	Insecticide	Acylhydrazine	Induction of abnormal molting	Negative	Blood(Anemia), Liver(Increased organ weight), Spleen(Increased pigment deposition)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased pigment deposition in hepatic stellate cell, Increased hematopoiesis in bone marrow	NOAEL: 27.2 mg/kg bw per day	ADI: 0.27 mg/kg bw	SF:100	--	--	--	--	--	Not evaluated	--	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111118278&fileId=201	2012/5/24	--
73	Cinidon-ethyl	142891-20-1	Agricultural products：Cinidon-ethyl(Parent compound only)	Pesticides	Herbicide	--	--	Negative	Liver(Hepatic tumor), Kidney(Renal dysfunction), Parathyroid gland(Parathyroid tumor)	Oral(feed)	Chronic toxicity study	1 year	Dog	None listed	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	--	--	--	--	--	Not evaluated	--	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20061219013&fileId=002	2007/5/24	--
74	Clethodim	99129-21-2	・Agricultural products：Clethodim, Clethodim sulfoxide, Clethodim sulfone ・Livestock products：Clethodim(Parent compound only)	Pesticides	Herbicide	Cyclohexanedione	Inhibition of lipid biosynthesis	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Centrilobular hepatocellular hypertrophy), Lung(Alveolus macrophage accumulation：Mouse)／External malformation：Rat(Fetus)	Oral(gavage)	Chronic toxicity study	1 year	Dog	Increased absolute/relative liver weight	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Soiled fur, Decreased total locomotor activity and ambulatory movement	NOAEL: 100 mg/kg bw	1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20131210415&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210209015&fileId=210	2021/5/18	The English report is the first edition published on March 29, 2016
75	Clofencet-potassium	82697-71-0	Agricultural products：Clofencet(Parent compound only)	Pesticides	Plant Growth Regulator	--	Inhibition of pollen production	Negative	Suppressed body weight gain, Testis(Epididymitis：Dog), Liver(Increased absolute/relative weight)／Increased incidence of thyroid C-cell adenoma：Male rat, Increased incidence of histiocytic sarcoma：Female mouse	Oral(capsule)	Chronic toxicity study	1 year	Dog	Epididymitis：Male	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	--	--	--	--	--	Not evaluated	--	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070605010&fileId=002	2008/10/2	--
76	Clofentezine	74115-24-5	Agricultural and livestock products：Clofentezine(Parent compound only)	Pesticides	Acaricide	Tetrazine	Inhibition of cuticle formation	Negative	Suppressed body weight gain, Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell)／Increased incidence of thyroid follicular cell tumor：Male Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased Chol and TG	NOAEL: 1.7 mg/kg bw per day	ADI: 0.017 mg/kg bw	SF:100	--	--	--	--	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	--	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718572&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20241002158&fileId=210	2025/3/13	The English report is the first edition published on June 9, 2015
77	Clomeprop	84496-56-0	・Agricultural products：Clomeprop(Parent compound only) ・Fishery products：Clomeprop, 2-(2,4-dichloro-m-tolyloxy)propionic acid	Pesticides	Herbicide	Phenoxy acid	Disturbance of auxin action	Negative	Blood(Anemia), Liver(Increased absolute/relative weight, Hepatocellular hypertrophy), Kidney(Increased absolute/relative weight, Deposition of hyaline droplet in renal tubule)／Increased incidence of hepatic hemangioednothelioma：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Decreased urinary protein concentration：Male	NOAEL: 0.62 mg/kg bw per day	ADI: 0.0062 mg/kg bw	SF:100	--	--	--	--	--	Not evaluated	--	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070306007&fileId=002	2009/7/23	--
78	Cloransulam-methyl	147150-35-4	Agricultural products：Cloransulam-methyl, Cloransulam	Pesticides	Herbicide	Triazolopyrimidine	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Hepatocellular hypertrophy, Pigment deposition), Kidney(Hypertrophy of collecting tubular epithelium cell , Vacuolation of proximal tubule epithelium cell)	Oral(feed)	Chronic toxicity study	1 year	Dog	Hepatocellular pigment deposition	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	--	--	--	--	--	Not evaluated	--	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325011&fileId=002	2009/5/21	--
79	Clothianidin	210880-92-5	Agricultural and livestock products：Clothianidin(Parent compound only)	Pesticides	Insecticide	Neonicotinoid	Action as an agonist at the nicotinic acetylcholine receptor, affecting the synapses	Negative	Suppressed body weight gain	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hyperplasia of ovarian interstitial gland：Female	NOAEL: 9.7 mg/kg bw per day	ADI: 0.097 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	No adverse effect observed at highest level(60 mg/kg bw)	NOAEL: 60 mg/kg bw	0.6 mg/kg bw	SF:100	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140407127&fileId=201	2014/10/7	--
80	Cumyluron	99485-76-4	Agricultural products：Cumyluron(Parent compound only)	Pesticides	Herbicide	Urea	--	Negative	Liver(Increased absolute/relative weight, Hepatocellular necrosis, Increased anisonucleosis, Bile duct proliferation, Centrilobular hepatocellular hypertrophy)	Oral(gavage)	Chronic toxicity study	1 year	Dog	Centrilobular hepatocellular hypertrophy	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	--	--	--	--	--	Not evaluated	--	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070206010&fileId=002	2007/8/9	--
81	Cyanazine	21725-46-2	Agricultural products：Cyanazine(Parent compound only)	Pesticides	Herbicide	Triazine	Inhibition of photosynthesis	Negative	Suppressed body weight gain／Increased incidence of mammary adenocarcinoma：Female rat／External malformation, Internal malformation, Skeletal malformation：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased incidence of mammary adenocarcinoma：Female	NOAEL: 0.053 mg/kg bw per day	ADI: 0.00053 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	No adverse effect observed at highest level(4.5 mg/kg bw per day).	NOAEL: 4.5 mg/kg bw per day	0.045 mg/kg bw	SF:100	--	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718581&fileId=201	2017/2/28	--
82	Cyanophos (CYAP)	2636-26-2	Agricultural products：Cyanophos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of brain ChE activity(more than 20%)	NOAEL: 0.101 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	Oral(gavage)	ChE inhibitor study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 1 mg/kg bw	0.01 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170315209&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170315209&fileId=201	2017/10/17	--

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
83	Cyantraniliprole	736994-63-1	Agricultural and livestock products：Cyantraniliprole(Parent compound only)	Pesticides	Insecticide	Anthranilicdiamide	Activating calcium release channels of ryanodine-sensitive intracellular	Negative	Suppressed body weight gain, Blood(Increased ALP ：Dog), Liver(Altered hepatocellular foci, Centrilobular hepatocellular hypertrophy), Gallbladder(Hyperplasia of mucosal epithelium：Dog), Artery(Arteritis：Dog), Thyroid(Increased organ weight, Hypertrophy of follicular epithelial cell)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP：Male	NOAEL: 0.96 mg/kg bw per day	ADI: 0.0096 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210519111&fileId=211	2021/5/19	–
84	Cyazofamid	120116-88-3	Agricultural products：Cyazofamid(Parent compound only)	Pesticides	Fungicide	Cyanoimidazole	Inhibition of electron transfer system in photosynthesis	Negative	Kidney(Increased organ weight, Urinary changes：Rat)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased liver and kidney relative weights	NOAEL: 17.1 mg/kg bw per day	ADI: 0.17 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Report https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20040712110&fileId=004	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201019123&fileId=210	2021/10/19	The English report is the first edition published on November 4, 2004
85	Cyclanilide	113136-77-9	Agricultural and livestock products：Cyclanilide(Parent compound only)	Pesticides	Plant Growth Regulator	–	Inhibition of auxin transport	Negative	Suppressed body weight gain, Liver(Hepatocellular necrosis)／Trend in increased incidence of total of hepatocellular adenoma and cartinoma：Female rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	Calcification of renal papilla：F1(Female parent)	LOAEL: 1.9 mg/kg bw per day	ADI: 0.0063 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080303002&fileId=201	2011/6/2	–
86	Cyclaniliprole	1031756-98-5	Agricultural products：Cyclaniliprole(Parent compound only)	Pesticides	Insecticide	Anthranilamide	Activating calcium release channels of ryanodine-sensitive intracellular	Negative	Liver(Increased organ weight, Increased ALP：Dog), Thyroid(Hypertrophy of follicular cell：Rat)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP	NOAEL: 1.29 mg/kg bw per day	ADI: 0.012 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160511024&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190731044&fileId=210	2019/10/15	The English report is the first edition published on October 25, 2016
87	Cycloprothrin	63935-38-6	Agricultural and fishery products：Cycloprothrin(Parent compound only)	Pesticides	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy)／Increased incidence of hepatocellular adenoma and hepatocellular cartinoma：Male mouse, Increased incidence of total of hepatocellular adenoma and hepatocellular cartinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Mouse	Hepatocellular hypertrophy：Male	NOAEL: 8.57 mg/kg bw per day	ADI: 0.085 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125003&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125003&fileId=201	2015/2/3	–
88	Cyclopyrimorate	499231-24-2	・Agricultural and fishery products：Cyclopyrimorate(Parent compound only) ・Livestock products：Cyclopyrimorate, Morpholine	Pesticides	Herbicide	–	Inhibition of carotenoid biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell：Rat), Kidney(Chronic nephrosis：Rat), Cerebellum(Vacuolation of white matter：Dog)／Increased incidence of total of hepatocellular adenoma and thyroid follicular cell adenoma/adenocarcinoma：Male rat, Increased incidence of hepatocellular adenoma：Male mouse	Oral(feed)	Carcinogenicity study	2 years	Rat	Acidophilic altered hepatocellular foci：Male	NOAEL: 6.37 mg/kg bw per day	ADI: 0.063 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180307164&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180307164&fileId=210	2018/8/28	–
89	Cyenopyrafen	560121-52-0	Agricultural products：Cyenopyrafen(Parent compound only)	Pesticides	Insecticide(Acaricide)	Pyrazole	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Pigment deposition of tubule in renal cortex)、Uterus(Hyperplasia of endometrium), Eye(Retinal atrophy)／Increased incidence of uterina adenocarcinoma：Rat／Prolongation of diestrus, Reduced gestational Period, Decreased number of implantation：Rat	(a)Oral(feed) (b)Oral(gavage)	(a)Combined chronic toxicity/carcinogenicity study (b)Developmental toxicity study	(a)2 years (b)23 days	(a)Rat (b)Rabbit	(a)Decreased TG：Male (b)Suppressed body weight gain：Maternal	NOAEL: (a)5.1 mg/kg bw per day (b)5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180808075&fileId=210	2019/1/15	–
90	Cyflufenamid	180409-60-3	Agricultural, livestock and fishery products：Cyflufenamid(Parent compound only)	Pesticides	Fungicide	Amidoxime	–	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Vacuolation of renal tubule), Heart(Myocarditis), Thyroid(Hypertrophy of follicular cell：Rat), Testis(Hyperplasia of interstitial cell), Cerebrum(Vacuolization：Dog)／Increased thyroid follicular cell adenoma：Male rat, Increased hepatocellular adenoma：MaleMouse／Increased incidence of external, internal and skeletal anomaly：Rabbit(Fetus)	(a)(b)Oral(feed)	(a)Chronic toxicity study (b)Combined chronic toxicity/carcinogenicity study	(a)1 year (b)2 years	(a)Dog (b)Rat	(a)Increased ALP (b)Pigment deposition of tubule in renal cortex, Hyaline droplet：Male	NOAEL: (a)4.14 mg/kg bw per day (b)4.4 mg/kg bw per day	ADI: 0.041 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190523008&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221214219&fileId=210	2023/3/15	The English report is the first edition published on January 14, 2020
91	Cyflumetofen	400882-07-7	Agricultural products：Cyflumetofen(Parent compound only)	Pesticides	Insecticide, Acaricide	Acylacetonitrile	–	Negative	Adrenal gland(Adrenocortical hypertrophy with increasing organ weight)／Increased incidence of testicular interstitial cell tumor：Rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	Increased absolute/relative Adrenal gland weight	NOAEL: 9.21 mg/kg bw per day	ADI: 0.092 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200611081&fileId=201	2020/8/4	–
92	Cyfluthrin	68359-37-5	Agricultural and livestock products：Cyfluthrin(Parent compound only；Includes beta-cyfluthrin)	Pesticides & Veterinary Medicinal Products	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Nervous system(Salivation, Abnormal gait), Suppressed body weight gain	Oral(feed)	Subacute toxicity study	90 days	Dog	Ataxia, Diarrhea	NOAEL: 2.38 mg/kg bw per day	ADI: 0.023 mg/kg bw	SF:100	Oral(feed)	Subacute toxicity study	Dog	Ataxia, Diarrhea	NOAEL: 2.38 mg/kg bw per day	0.023 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120821607&fileId=210	2021/6/8	–
93	Cyhexatin ※1	13121-70-5	Agricultural products：Cyhexatin(Parent compound only)	Pesticides	Insecticide(Acaricide)	Organotin	–	Negative	Suppressed body weight gain, Liver(Hyperplasia of bile duct)／Trend in increased hepatocellular adenoma：Female rat／Decreased body weight, Abortion：Dutchland NZW Rabbit(Maternal)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Male	NOAEL: 0.34 mg/kg bw per day	ADI: 0.0034 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071030005&fileId=201	2013/2/4	Evaluated as a group of Azocyclotin and Cyhexatin. Please see #25.

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
94	Cymoxanil	57966-95-7	Agricultural products：Cymoxanil(Parent compound only)	Pesticides	Fungicide	Cyanoacetamide	Inhibition of DNA and RNA replication	Negative	Testis(Atrophy, Oval degeneration of spermatid, Oligospermia：Dog), Epididymis(Atrophy, Increased polynuclear spermatid, Spermatic granuloma), Thymus(Decreased organ weight, Atrophy：Dog), Eye(Retinal atrophy), Nervous system(Hypersensitivity, Inreased aggression：Male rat, Degeneration of sciatic nerve myelin sheath：Female rat／Decreased number of corpus luteum and implantation：Rat, Dysplasia of sternebra segment and Renal pelvic dilatation：Rat(Fetus), Ventricular enlargement, Renal pelvic dilatation, Cleft Palate：Rabbit	Oral(feed)	Chronic toxicity study	1 year	Dog	Testis Atrophy：Male	NOAEL: 1.3 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Cleft Palate：Fetus	NOAEL: 8 mg/kg bw per day	0.08 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124687&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181212145&fileId=210	2019/2/5	The English report is the third edition published on December 16, 2011
95	Cypermethrin	52315-07-8	Agricultural and livestock products：Cypermethrin(Parent compound only；including alpha-Cypermethrin and zeta-Cypermethrin)	Pesticides & Veterinary Medicinal Products	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Nervous system(Tremor)	Oral(feed)	Subacute toxicity study	13 weeks	Dog	Tremor	NOAEL: 2.25 mg/kg bw per day	ADI: 0.022 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Convulsion, Tremor	NOAEL: 4 mg/kg bw	0.04 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180307166&fileId=210	2018/3/27	–
96	Cyprodinil	121552-61-2	Agricultural, livestock and fishery products：Cyprodinil(Parent compound only)	Pesticides	Fungicide	Anilinopyrimidine	Inhibition of methionine biosynthesis	Negative	Liver(Hepatocellular hypertrophy, Spongy degeneration), Kidney(Chronic inflammation), Thyroid(Hypertrophy of follicular epithelial cell)／Increased incidence of mammary fibroadenoma：Female rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatic spongy degeneration：Male	NOAEL: 2.7 mg/kg bw per day	ADI: 0.027 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100913520&fileId=201	2012/9/24	–
97	Cyromazine	66215-27-8	Agricultural products：Cyromazine(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Triazine	Inhibition of molting and metamorphosis	Negative	Suppressed body weight gain, Heart(Increased absolute/relative weight, Chronic myocarditis：Dog)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Female	NOAEL: 1.81 mg/kg bw per day	ADI: 0.018 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030022&fileId=06_001_001	2007/11/29	–
98	Daimuron	412928-75-7	Food products：Daimuron(Parent compound only)	Pesticides	Herbicide	Urea	Inhibition of cell division	Negative	Suppressed body weight gain, Liver(Increased absolute/relative weight, Increased ALP)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased absolute/relative liver weight：Male	NOAEL: 30.6 mg/kg bw per day	ADI: 0.3 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030019&fileId=06_001_001	2007/11/8	–
99	Dazomet ※3	533-74-4	Agricultural products：Methyl isothiocyanate	Pesticides	Nematicide, Fungicide, Insecticide, Herbicide	Dithiocarbamate	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Increased organ weight), Spleen(Hemosiderin deposition)／Increased postimplantation loss rate, Decreased the number of viable fetuses	Oral(feed)	Chronic toxicity study	1 year	Dog	Hemosiderin deposition in liver：Female	NOAEL: 0.4 mg/kg bw per day	ADI: 0.004 mg/kg bw	SF:100	Oral(feed)	Subacute toxicity study	Dog	Suppressed body weight gain	NOAEL: 2.8 mg/kg bw per day	0.028 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231121190&fileId=210	2024/1/31	Evaluated as a group of Dazomet, Metam and Methyl isothiocyanate. Please see #100.
100	Dazomet, Metam (Metam-ammonium, Metam-sodium, Metam-potassium), Methyl isothiocyanate (MITC) ※3	533-74-4 (as Dazomet), 39680-90-5 (as Metam-ammonium), 137-42-8 (as Metam-sodium), 137-41-7 (as Metam-potassium), 556-61-6 (as Methyl isothiocyanate)	Agricultural products：Methyl isothiocyanate	Pesticides	Nematicide, Fungicide, Insecticide, Herbicide	Dithiocarbamate	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular fatty degeneration), Forestomach(Thickening)	(a)(b)Oral(gavage)	(a)(b)Subacute and Chronic toxicity study	(a)90 days (b)1 year	(a)(b)Dog	(a)Hepatocellular vacuolation and Periportal hepatocellular fatty degeneration (b)Increased absolute/relative liver weight	NOAEL: 0.4 mg/kg bw per day	ADI: 0.004 mg/kg bw (as a group ADI of Dazomet, Metam and Methyl isothiocyanate)	SF:100	(a)(b) Oral(gavage)	(a)(b) Pharmacological study	(a)Mouse (b)Rabbit	(a)Increased responsiveness and reflex, Hypersensitivity：Male (b)Hypothermia, Abnormal posture, Hyperpnea：Male	NOAEL: 10 mg/kg bw	0.1 mg/kg bw (as a group ARfD of Dazomet, Metam and Methyl isothiocyanate)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231121190&fileId=210	2024/1/31	–
101	Deltamethrin ※4	52918-63-5	Agricultural and livestock products：Deltamethrin(total amount of the isomers)	Pesticides & Veterinary Medicinal Products	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Nervous system(Convulsion)	(a)(c)Oral(feed) (b)Oral(capsule)	(a)Combined chronic toxicity/carcinogenicity study (b)(c)Chronic toxicity study	(a)(c)2 years (b)1 year	(a)Rat (b)(c)Dog	(a)Suppressed body weight gain (b)Abnormal behavior, Watery stool (c)No toxicological effect	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(capsule)	Subacute toxicity study	Dog	Pupillary dilation	NOAEL: 1 mg/kg bw per day	0.01 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130808261&fileId=301	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130808261&fileId=201	2015/1/13	Evaluated as a group of Deltamethrin and Tralomethrin. Please see #102.
102	Deltamethrin, Tralomethrin ※4	52918-63-5 (as Deltamethrin), 66841-25-6 (as Tralomethrin)	Agricultural and livestock products：Deltamethrin(total amount of the isomers), Tralomethrin	Pesticides & Veterinary Medicinal Products	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Skin(Dermatitis), Nervous system(Convulsion)	(a)(b)Oral(gavage)	(a)(b)Combined chronic toxicity/carcinogenicity study	(a)(b)2 years	(a)Rat (b)Mouse	(a)Suppressed body weight gain (b)Dermatitis：Male	NOAEL: 0.75 mg/kg bw per day	ADI: 0.0075 mg/kg bw (as a group ADI of Deltamethrin and Tralomethrin)	SF:100	Oral(capsule)	Subacute toxicity study	Dog	Pupillary dilation	NOAEL: 1 mg/kg bw per day	0.01 mg/kg bw (as a group ARfD of Deltamethrin and Tralomethrin)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130808261&fileId=301	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130808261&fileId=201	2015/1/13	–
103	Desmedipham	13684-56-5	Agricultural products：Desmedipham(Parent compound only)	Pesticides	Herbicide	Carbanilate	Inhibition of photosynthesis	Negative	Suppressed body weight gain, Blood(Hemolytic anemia, Methemoglobinemia), Thyroid(Hypertrophy of follicular cell)／External, internal and skeletal anomaly：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased MetHb and Ret	NOAEL: 3.2 mg/kg bw per day	ADI: 0.032 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Decreased feed intake：Maternal	NOAEL: 90 mg/kg bw per day	0.9 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20171012112&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210210010&fileId=201	2017/7/4	–
104	Diazinon	333-41-5	Agricultural, livestock and fishery products：Diazinon(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of erythrocyte and brain AChE activity(more than 20%), Neurological symptoms ／ Decreased copulation rate and fertility rate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte AChE activity(more than 20%)	NOAEL: 0.1 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Inhibition of erythrocyte and brain AChE activity(more than 20%)	NOAEL: 2.5 mg/kg bw	0.025 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130312069&fileId=401	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=Kya20170524032&fileId=210	2017/12/12	The English report is the first edition published on August 19, 2014
105	Dicamba	1918-00-9	Agricultural and livestock products：Dicamba, 3,6-dichloro-2-hydroxybenzoic acid(3,6-dichlorosalicylic acid)	Pesticides	Herbicide	Benzoic acid	Auxin-like effect	Negative	Nervous system(Muscle tone, Abnormal gait), Suppressed body weight gain, Liver(Hepatocellular hypertrophy), Blood(Anemia)	Oral(capsule)	Developmental toxicity study	6 - 18 days of pregnancy	Rabbit	Suppressed body weight gain：Maternal	NOAEL: 30 mg/kg bw per day	ADI: 0.3 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100813497&fileId=201	2012/10/29	–
106	Dichlobenil	1194-65-6	Agricultural and fishery products：Dichlobenil(Parent compound only)	Pesticides	Herbicide	–	Induction of abnormal cell differentiation	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Kidney(Increased organ weight, Increased incidence of chronic nephrosis), Blood(Anemia)／Increased hepatocellular tumor：Rat／Extra Rib：Rat, External anomaly or Internal anomary：Rabbit	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased absolute/relative liver weight	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100927558&fileId=201	2014/7/1	–
107	Dichlobentiazox	957144-77-3	Agricultural products：Dichlobentiazox(Parent compound only)	Pesticides	Fungicide	Benzoisothiazole-Isothiazole	Induction of disease resistance	Negative	Suppressed body weight gain, Blood(Anemia：Dog), Liver(Hypertrophy/Hyperplasia of biliary), Duodenum(Hypertrophy/Hyperplasia of villus epithelium)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hypertrophy/Hyperplasia of duodenal villus epithelium	NOAEL: 5.03 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121129&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121129&fileId=210	2019/5/28	–

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
108	Dichlormid	37764-25-3	Agricultural products：Dichlormid(Parent compound only)	Pesticides	Herbicide Safeners	—	Acceleration of drug metabolism	Negative	Suppressed body weight gain, Liver(Centrilobular hepatocellular hypertrophy, Pigment deposition of biliary)	Oral(capsule)	Subacute toxicity study	90 days	Dog	Suppressed body weight gain	NOAEL: 5 mg/kg bw per day	ADI: 0.016 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 insufficient number of data:3	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070112003&fileId=002	2008/5/15	—
109	Dichlorodiisopropyl ether	108-60-1	Agricultural products：DCIP(Parent compound only)	Pesticides	Nematicide	Organochlorine	Inhibition of enzyme activity by nucleophilic reaction	Negative	Suppressed body weight gain, Blood(Anemia)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 2.7 mg/kg bw per day	ADI: 0.027 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Subacute neurotoxicity study (b)Subacute toxicity study	(a)Rat (b)Dog	(a)Suppressed body weight gain：Male, Eyelid closure (b)Reduced motor activity, Decreased body weight and feed intake：Male	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100927563&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100927563&fileId=201	2017/2/28	—
110	Dichlorprop (Dichlorprop-P)	120-36-5 (as Dichlorprop), 15165-67-0 (as Dichlorprop-P)	Agricultural products：Dichlorprop(Parent compound only：including Dichlorprop-P)	Pesticides	Plant Growth Regulator	Chlorophenoxy	Inhibition of ethylene production and cellulase activity	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy, Necrosis), Kidney(Increased organ weight)／Reduced gestation rate, Reduced copulation rate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Decreased urinary specific gravity	NOAEL: 3.64 mg/kg bw per day	ADI: 0.036 mg/kg bw	SF:100	Oral(unspecified)	Pharmacological study	Mouse	Abnormal gait, Decreased locomotor activity：Male	NOEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130312059&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130312059&fileId=201	2017/7/4	—
111	Diclocymet	139920-32-4	Food products：Diclocymet(Parent compound only)	Pesticides	Fungicide	Amide	Inhibition of melanin biosynthesis	Negative	Liver(Hepatocellular hypertrophy, Increased absolute/relative weight)／Increased incidence of hepatocellular adenoma：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Transient suppressed body weight gain	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080111002&fileId=002	2008/12/18	—
112	Dicloromezotiaz	1263629-39-5	Agricultural products：Dicloromezotiaz(Parent compound only)	Pesticides	Insecticide	mesoion	Action on the nicotinic acetylcholine receptor, affecting the synapses	Negative	Suppressed body weight gain,／Increased incidence of malignant astrocytoma and testicular interstitial cell tumor：Male rat	Oral(feed)	Two-generation reproductive activity study	—	Rat	Suppressed body weight gain	NOAEL: 122 mg/kg bw per day	ADI: 1.2 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221124209&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221124209&fileId=210	2023/4/12	—
113	Diclosulam	145701-21-9	Agricultural products：Diclosulam(Parent compound only)	Pesticides	Herbicide	Triazolopyrimidine	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Hepatocellular hypertrophy, Increased relative weight), Kidney(Renal pelvic epithelial hyperplasia, Decreased absolute/relative weight)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased urinary specific gravity, Increased urine volume, Renal tubular degeneration	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070605011&fileId=002	2008/12/11	—
114	Dicrotophos	141-66-2	Agricultural products：Dicrotophos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	—	Negative	AInhibition of erythrocyte ChE activity(more than 20%)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	AInhibition of brain, plasma and erythrocyte ChE activity(more than 20%)	LOAEL: 0.02 mg/kg bw per day	ADI: 0.000066 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20061219012&fileId=002	2007/5/24	—
115	Dieldrin	60-57-1	Agricultural and livestock products：Aldrin, Dieldrin	Pesticides	Insecticide	Organochlorine	Effects on GABA receptors	Negative	Liver(Centrilobular hepatocellular hypertrophy), Nervous system(Tremor, Convulsion)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased liver weight	NOAEL: 0.005 mg/kg bw per day	TDI: 0.00005 mg/kg bw	UF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612246&fileId=201	2013/8/5	Currently prohibited for production and use
116	Diethofencarb	87130-20-9	Agricultural products：Diethofencarb(Parent compound only)	Pesticides	Fungicide	N-phenyl carbamate	Inhibition of cell division	Negative	Suppressed body weight gain, Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy)／Increased incidence of total of thyroid follicular cell adenoma/adenocarcinoma：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 42.7 mg/kg bw per day	ADI: 0.42 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hypothermia, Decreased locomotor activity：Male	NOAEL: 200 mg/kg bw	2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150113249&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220713112&fileId=210	2022/8/31	The English report is the first edition published on May 12, 2015
117	Difenoconazole	119446-68-3	・Agricultural products：Difenoconazole(Parent compound only) ・Livestock products：Difenoconazole, 1-[2-chloro-4-(4-chlorophenoxy) phenyl]-2-(1H-1,2,4-triazole-1-yl) ethanol	Pesticides & Additives	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Eye(Cataract：Dog), Muscle weakness of forelimb or hindlimb：Rat／Hepatocellular adenoma, Hepatocellular cartinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy	NOAEL: 0.96 mg/kg bw per day	ADI: 0.0096 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Muscle weakness of forelimb：Male	NOAEL: 25 mg/kg bw	0.25 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220824142&fileId=210	2022/12/14	—
118	Diflubenzuron	35367-38-5	Agricultural and livestock products：Diflubenzuron(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Benzoylurea	Inhibition of chitin synthesis	Negative	Blood(Hemolytic anemia, Increased MetHb)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased MetHb and hepatic pigment deposition	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101210006&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101210006&fileId=201	2015/7/28	—
119	Diflufenican	83164-33-4	Agricultural products：Diflufenican(Parent compound only)	Pesticides	Herbicide	Phenoxynicotinic anilide	Inhibition of photosynthesis	Negative	Suppressed body weight gain, Decreased feed intake, Liver(Increased organ weight)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 23.3 mg/kg bw per day	ADI: 0.23 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100323351&fileId=201	2014/5/20	—
120_1	Dimesulfazet	1215111-77-5	Agricultural and fishery products：Dimesulfazet(Parent compound only)	Pesticides	Herbicide	Sulfonanilide	—	Negative	Suppressed body weight gain, Kidney(Increased organ weight：rat), Urinary bladder(Epithelial hyperplasia of urinary tract：Mouse and Dog)／Increased maternal with abnormal fetus, Increased abnormal fetus：Rabbit	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased relative kidney weight, Increased BUN：Male	NOAEL: 0.39 mg/kg bw per day	ADI: 0.0039 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Listless, Decreased number of rearings, Decreased motor activity：Female	LOAEL: 125 mg/kg bw	0.41 mg/kg bw (for general population)	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221124210&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221124210&fileId=210	2023/5/9	—
120_2	Dimesulfazet	1215111-77-5	Agricultural and fishery products：Dimesulfazet(Parent compound only)	Pesticides	Herbicide	Sulfonanilide	—	Negative	Suppressed body weight gain, Kidney(Increased organ weight：rat), Urinary bladder(Epithelial hyperplasia of urinary tract：Mouse and Dog)／Increased maternal with abnormal fetus, Increased abnormal fetus：Rabbit	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased relative kidney weight, Increased BUN：Male	NOAEL: 0.39 mg/kg bw per day	ADI: 0.0039 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Increased maternal with abnormal fetus, Increased abnormal fetus	NOAEL: 15 mg/kg bw per day	0.15 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221124210&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221124210&fileId=210	2023/5/9	—
121	Dimethametryn	22936-75-0	Agricultural and fishery products：Dimethametryn(Parent compound only)	Pesticides	Herbicide	Triazine	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Single cell necrosis), Kidney(Pigment deposition of tubular epithelium), Pancreas(Vacuolation of exocrine glands)／Increased pancreatic exocrine glands tumor and testicular interstitial cell tumor：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative pancreas weight：Male	NOAEL: 0.94 mg/kg bw per day	ADI: 0.0094 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071030002&fileId=201	2011/12/22	—

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
122	Dimethenamid, Dimethenamid-P	87674-68-8 [as Dimethenamid (racemate)], 163515-14-8 [as Dimethenamid-P(S isomer)]	Agricultural and livestock products：Dimethenamid(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 5.1 mg/kg bw per day	ADI: 0.051mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain and Decreased feed intake：Maternal	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201019124&fileId=210	2021/1/12	–
123	Dimethomorph	110488-70-5	Agricultural and livestock products：Dimethomorph(Parent compound only)	Pesticides	Fungicide	Cinnamamide	Inhibition of hypha growth and sporulation	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular vacuolation)	Oral(feed)	Carcinogenicity study	2 years	Rat	Suppressed body weight gain：Female	NOAEL: 11.3 mg/kg bw per day	ADI: 0.11 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b)Developmental toxicity study	(a)(b)Rat	(a)Decreased locomotor activity：Female (b)Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 60 mg/kg bw per day	0.6 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220824143&fileId=210	2023/2/24	–
124	Dimpropyridaz	1403615-77-9	Agricultural products：Dimpropyridaz, Metabolite M7 and M9	Pesticides	Insecticide	Pyridazinepyrazolecarboxamide	Inhibition of eating behavior	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy)：Rat	Oral(feed)	①Combined chronic toxicity / carcinogenicity study② Carcinogenicity study	①2years②18 months	①2years ②18 months	Suppressed body weight gain	NOAEL: 21 mg/kg bw per day	ADI: 0.21 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased feed intake,Incomplete eyelid closure, Piloerection,Decreased exploratory behavior	NOAEL: 120 mg/kg bw per day	1.2 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231121188&fileId=210	2024/10/23	
125	Dinotefuran	165252-70-0	Agricultural and livestock products：Dinotefuran(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Neonicotinoid	Action as an agonist at the nicotinic acetylcholine receptor, affecting the synapses	Negative	Suppressed body weight gain	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain：Female	NOAEL: 22 mg/kg bw per day	ADI: 0.22 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Reduced motor activity, Tremor：Maternal	NOAEL: 125 mg/kg bw per day	1.2 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160713077&fileId=201	2017/2/14	–
126	Diquat (Diquat dibromide)	85-00-7	Agricultural and livestock products：Diquat(Parent compound only)	Pesticides	Herbicide	Bipyridylium	Cell destruction by peroxide	Negative	Suppressed body weight gain, Eye(Cataract：Rat and Dog), Tongue and Palate(Inflammation：Rat), Kidney(Renal tubular dilatation, Hyaline droplet formation in renal tubule：Mouse)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Cataract	NOAEL: 0.58 mg/kg bw per day (converted value for diquat ion)	ADI: 0.0058 mg/kg bw (converted into diquat ion)	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Diarrhea, Piloerection	NOAEL: 75 mg/kg bw (converted value for diquat ion)	0.75 mg/kg bw (converted value for diquat ion)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190123008&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190123008&fileId=210	2019/10/8	–
127	Dithianon	3347-22-6	Agricultural products：Dithianon(Parent compound only)	Pesticides	Fungicide	Quinone	Inhibition of SH-enzymes	Negative	Kidney(Chronic nephrosis, Renal tubular dilatation), Liver(Hepatocellular hypertrophy)／kidney tumor：Female rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased GGT and Glu：Male, Chronic nephrosis：Female	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170831241&fileId=210	2018/12/4	–
128	Dithiopyr	97886-45-8	Food products：Dithiopyr(Parent compound only)	Pesticides	Herbicide	Pyridine	Inhibition of cell division	Negative	Liver(Increased absolute/relative weight, Diffuse hepatocyte swelling)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased Alb and T.Chol	NOAEL: 0.362 mg/kg bw per day	ADI: 0.0036 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030029&fileId=06_001_001	2008/1/10	–
129	Emamectin benzoate	155569-91-8	・Agricultural products：Emamectin benzoate, 4''-deoxy-4''-epi-(N-formyl-N-(methyl)avermectin B1a and/or B1b ・Livestock products：Emamectin benzoate(Parent compound only) ・Fishery products：Emamectin B1a	Pesticides & Veterinary Medicinal Products	Insecticide	16 membered macrocyclic lactone	Action on inhibitory neurotransmitter receptors	Negative	Suppressed body weight gain, Nervous system(Degeneration of brain, spinal cord and sciatic nerve)／Reduced conception rate and fertilization rate／Reduced auditory startle reaction：Offspring	Oral(gavage)	Acute and Chronic toxicity study	90 days and 1 year	Dog	Degeneration of white matter in brain, Atrophy of muscle, Degeneration of axon in brain and Peripheral nervous	NOAEL: 0.25 mg/kg bw per day	ADI: 0.0005 mg/kg bw (converted into free chlorine)	SF:500 interspecies variation:10 interindividual variation:10 small difference between LOAEL and NOAEL:5	Oral(gavage)	Subacute toxicity study and Repeated-dose neurotoxicity study	Dog	No neurological adverse effect observed at highest level(1.5 mg/kg bw per day) during a one-week dosing period	NOAEL: 1.5 mg/kg bw per day	0.015 mg/kg bw (converted into free chlorine)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120326437&fileId=210	2023/7/6	–
130	EPN	2104-64-5	Agricultural and fishery products：EPN(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte ChE activity(more than 20%)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.14 mg/kg bw per day	ADI: 0.0014 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Slight piloerection and listless	LOAEL: 2 mg/kg bw	0.0066 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160511022&fileId=201	2017/2/14	–
131	Epoxiconazole	133855-98-8	Agricultural and livestock products：Epoxiconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Adrenal gland(Fat deposition of adrenal cortex：Rat)、Ovary(Ovarian cyst：Rat)／Increased incidence of adrenal cortex tumor and granulosa-theca cell tumor：Female rat, Increased incidence of hepatocellular adenoma and hepatocellular cartinoma：Mouse ／Reduced conception rate：Male rat, Hemorrhage of vagina, Extended gestation period, Increased number of stillborn infant and Increased placenta weight：Female rat, Increasd 14 ribs：Rat(Fetus)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Increased absolute/relative liver weight	NOAEL: 0.69 mg/kg bw per day	ADI: 0.0069 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011231&fileId=201	2014/1/20	–
132	Esprocarb	85785-20-2	Agricultural, livestock and fishery products：Esprocarb (Parent compound only)	Pesticides	Herbicide	Thiocarbamate	Inhibition of very long chain fatty acid biosynthesis	Negative	Liver(Increased organ weights), Kidney(Deposition of hyaline droplet)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Hyperplasia and Hypertrophy of adrenal cortex：Male	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral (gavage)	Developmental toxicity study	Rat	Suppressed body weight gain and decreased feed intake：Maternal	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw	SF:100	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230322043&fileId=213	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230322043&fileId=211	2024/6/11	–
133	Ethaboxam	162650-77-3	Agricultural products：Ethaboxam(Parent compound only)	Pesticides	Fungicide	Thiazolecarboxamide	–	Negative	Testis(Seminiferous tubular atrophy：Rat), Liver(Hepatocellular hypertrophy), Blood(Anemia：Dog)／Increased incidence of testis interstitial cell adenoma：Rat／Reduced copulation rate, fertilization rate, fertility rate and sperm motility, Increased incidence of visceral malformation, visceral anomaly and skeletal anomaly：Rat	Oral(capsule)	Chronic toxicity study	1 year	Dog	Hepatocellular hypertrophy	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Decreased feed intake：Maternal	NOAEL: 75 mg/kg bw per day	0.75 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200213026&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200213026&fileId=210	2020/9/1	–
134	Ethalfluralin	5523-68-6	Agricultural products：Ethalfluralin(Parent compound only)	Pesticides	Herbicide	Dinitroaniline	Inhibition of cell division	Negative	Liver(Increased ALP and ALT, Increased organ weight, Hepatocellular focal hyperplasia：Mouse)	Oral(feed)	Chronic toxicity study	1 year	Rat	Change of hematological examination results(Unknown details)	NOAEL: 3.9 mg/kg bw per day	ADI: 0.039 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325009&fileId=021	2010/10/14	–
135	Ethiprole	181587-01-9	Agricultural and fishery products：Ethiprole(Parent compound only)	Pesticides	Insecticide	Phenylpyrazole	Inhibition of neural transmission	Negative	Liver(Hepatocellular hypertrophy)／Increased thyroid tumor：Rat, Increased liver tumor：Mouse	Oral(gavage)	Developmental toxicity study	23 days	Rabbit	Suppressed body weight gain：Maternal, Increased incomplete ossification：Fetus	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	Report https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20031029034&fileId=06_001_003	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20131210413&fileId=201	2014/3/24	The English report is the first edition published on July 22, 2004
136	Ethofumesate	26225-79-6	Agricultural and livestock products：Ethofumesate(Parent compound only)	Pesticides	Herbicide	Benzofuran	Inhibition of cell division	Negative	Suppressed body weight gain, Liver(Increased organ weight)／Delayed ossification：Rabbit(Fetus)	Oral(gavage)	Developmental toxicity study	6 - 18 days of pregnancy	Rabbit	Delayed vertebral arch ossification：Fetus	NOAEL: 30 mg/kg bw per day	ADI: 0.3 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070306004&fileId=201	2012/5/31	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
137	Ethoprophos	13194-48-4	Food products：Ethoprophos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Liver(hepatocellular vacuolation, Pigment deposition：Dog)／Increased incidence of adrenal gland ans thyroid tumors：Male rat, Increased incidence of uterine tumor：FemaleRat	Oral(capsule)	Chronic toxicity study	1 year	Dog	hepatocellular vacuolation	NOAEL: 0.025 mg/kg bw per day	ADI: 0.00025 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20080708003&fileId=021	2010/3/25	–
138	Ethoxyquin	91-53-2	Agricultural products：Ethoxyquin and its dimer	Pesticides & Additives	Plant Growth Regulator	–	–	Negative	Induce chromosomal aberration, Lipofuscin deposition：Kidney	Oral(feed)	Two-generation reproductive activity study	–	Dog	Lacrimation, Dehydration, Hematological and biochemical change, Pigment deposition of liver	LOAEL: 2.5 mg/kg bw per day	ADI: 0.0083 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	–	–	–	–	–	Not evaluated	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120912001&fileId=204	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120912001&fileId=203	2013/11/25	–
139	Ethoxysulfuron	126801-58-9	Agricultural products：Ethoxysulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain, Chronic hepatitis：Dog, Decreased T3 and T4 ／Increased incidence of uterina adenocarcinoma ：Rat	Oral(feed)	Subacute toxicity study	90 days	Dog	Hypertrophy of follicular epithelial in thyroid	NOAEL: 5.6 mg/kg bw per day	ADI: 0.056 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20100927564&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20100927564&fileId=201	2013/10/21	–
140	Ethychlozate	27512-72-7	Agricultural products：Ethychlozate, 5-chloro-3(1H)-indazolyl acetate	Pesticides	Plant Growth Regulator	–	Induction of ethylene production	Negative	Kidney(Basophilic change of tubular epithelium, Renal papillary necrosis), Liver(Pigment deposition of kupffer cell：Dog)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Pigment deposition of kupffer cell：Female	NOAEL: 17 mg/kg bw per day	ADI: 0.17 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20090203297&fileId=201	2011/3/3	–
141	Etobenzanid	79540-50-4	Agricultural and fishery products：Etobenzanid(Parent compound only)	Pesticides	Herbicide	Anilide	Inhibition of protein biosynthesis	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy, Altered hepatocellular foci), Kidney(Tubular epithelium cell degeneration：Rat)／Increased incidence of hepatocellular adenoma：Female mouse, Increased incidence of total of hepatocellular adenoma and hepatocellular cartinoma：Male mouse／Reduced conception rate, Extended mating period and Delayed vaginal opening：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy：Male	NOAEL: 4.4 mg/kg bw per day	ADI: 0.044 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20070806004&fileId=201	2014/1/20	–
142	Etofenprox	80844-07-1	Agricultural, livestock and fishery products：Etofenprox(Parent compound only)	Pesticides	Insecticide	Pyrethroid	Disturbance of sodium release channels of nervous systems	Negative	Liver(Hepatocellular hypertrophy), Kidney(Tubular basophilia changes), Thyroid(Increased incidence of microfollicles：Rat), Blood(Anemia：Mouse) ／Thyroid follicular cell adenoma：Female rat	Oral(feed)	Carcinogenicity study	2 years	Mouse	Renal tubular basophilia changes	NOAEL: 3.1 mg/kg bw per day	ADI: 0.031 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight and feed intake：Maternal	NOAEL: 100 mg/kg bw per day	1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20240222101 8&fileId=210	2024/6/11	–
143	Etoxazole	153233-91-1	Agricultural and livestock products：Etoxazole(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide (Acaricide)	Oxazoline	Inhibition of chitin synthesis	Negative	Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy), Tooth(Enamel dysplasia：Rat)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative weight：Male	NOAEL: 4.01 mg/kg bw per day	ADI: 0.04 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20210519114&fileId=211	2021/7/28	–
144	Famoxadone	131807-57-3	Agricultural, livestock and fishery products：Famoxadone(Parent compound only)	Pesticides	Fungicide	Oxazolidinedione	Inhibition of electron transfer system in photosynthesis	Negative	Blood(Hemolytic anemia), Liver(Centrilobular hepatocellular hypertrophy, Pigment deposition), Eye(Cataract：Dog)	Oral(feed)	Chronic toxicity study	1 year	Dog	Degeneration of lens	NOAEL: 1.2 mg/kg bw per day	ADI: 0.006 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 additional:2	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20160323542&fileId=201	2016/9/27	–
145	Fenamidone	161326-34-7	Agricultural products：Fenamidone, 5-methyl-5-phenyl-3-phenylaminoimidazolidine-2,4-dione	Pesticides	Fungicide	Imidazolinone	Inhibition of electron transfer system in photosynthesis	Negative	Thyroid(Increased absolute/relative weight, Diffuse hypertrophy/hyperplasia of follicular cell), Liver(Increased absolute/relative weight, Hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative kidney weight	NOAEL: 2.83 mg/kg bw per day	ADI: 0.028 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20070626004&fileId=002	2008/4/24	–
146	Fenamiphos	22224-92-6	Agricultural and livestock products：Fenamiphos, Fenamiphos-sulfoxide, Fenamiphos-sulfone	Pesticides	Insecticide (Nematicide)	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte ChE activity(more than 20%)	Oral(feed)	Chronic toxicity study	2 years and 1 year	Dog	Inhibition of ChE activity(more than 20%)	NOAEL: 0.08 mg/kg bw per day	ADI: 0.0008 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Dog	Inhibition of ChE activity(more than 20%)	NOAEL: 0.25 mg/kg bw	0.0025 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20090324012&fileId=210	2023/3/15	–
147_1	Fenarimol	60168-88-9	Agricultural products：Fenarimol(Parent compound only)	Pesticides	Fungicide	Pyrimidin	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy, Fatty degeneration)／Reduced copulation rate and reproduction rate, Extended gestation period, Dystocia：Rat(Parent), Decreased numbers of infant and viability rate：Rat(Offspring)	Oral(feed)	three-generation reproductive activity study	–	Rat	Decreased numbers of infant：Offspring	NOAEL: 0.6 mg/kg bw per day	ADI: 0.006 mg/kg bw	SF:100	Oral(feed)	Two-generation reproductive activity study	Rat	Reduced copulation rate and reproduction rate：Parent	NOAEL: 3 mg/kg bw per day	0.03 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110613082&fileId=210	2021/6/10	–
147_2	Fenarimol	60168-88-9	Agricultural products：Fenarimol(Parent compound only)	Pesticides	Fungicide	Pyrimidin	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy, Fatty degeneration)／Reduced copulation rate and reproduction rate, Extended gestation period, Dystocia：Rat(Parent), Decreased numbers of infant and viability rate：Rat(Offspring)	Oral(feed)	three-generation reproductive activity study	–	Rat	Decreased numbers of infant：Offspring	NOAEL: 0.6 mg/kg bw per day	ADI: 0.006 mg/kg bw	SF:100	Oral(feed)	three-generation reproductive activity study	Rat	Reduced copulation rate and reproduction rate：Parent	NOAEL: 1.7 mg/kg bw per day	0.017 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110613082&fileId=210	2021/6/10	–
148	Fenazaquin	120928-09-8	Agricultural products：Fenazaquin, Fenazaquin dimer	Pesticides	Insecticide, Acaricide	Quinazoline	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Altered hepatocellular foci：Male	NOAEL: 0.46 mg/kg bw per day	ADI: 0.0046 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20151117470&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20210209017&fileId=210	2021/5/18	The English report is the first edition published on October 25, 2016
149	Fenbuconazole	114369-43-6	Agricultural and livestock products：Fenbuconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Hepatocellular hypertrophy, Vacuolization)／Increased incidence of thyroid tumor：Rat, Increased incidence of hepatic tumor：Mouse／Reduced gestation rate, Decreased number of neonate and littermate, Increased number of stillborn infant, Extended gestation period	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular/Midlobular hepatocellular vacuolation	NOAEL: 3.03 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b) Developmental toxicity study	(a)Rat (b)Rabbit	(a)Suppressed body weight gain, Dehairing：Maternal (b)Decreased number of offspring, Embryo death of postimplantation：Fetus	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20200611083&fileId=210	2020/9/1	–
150	Fenhexamid	126833-17-8	Agricultural products：Fenhexamid(Parent compound only)	Pesticides	Fungicide	Hydroxyanilide	Inhibition of hypha growth	Negative	Blood(Increased heinz body, Decreased RBC：Dog)、Kidney(Renal tubular dilatation)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased heinz body	NOAEL: 17.5 mg/kg bw per day	ADI: 0.17 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20150113253&fileId=201	2015/8/18	–
151	Fenitrothion	122-14-5	Agricultural, livestock and fishery products：Fenitrothion(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of ChE activity(more than 20%)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte and brain ChE activity(more than 20%)	NOAEL: 0.49 mg/kg bw per day	ADI: 0.0049 mg/kg bw	SF:100	Oral(capsule)	Repeated-dose (4 days) toxicity study	Human	No adverse effect observed at highest level(0.36 mg/kg bw per day)	NOAEL: 0.36 mg/kg bw per day	0.036 mg/kg bw	SF:10	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20100927561&fileId=401	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220524084&fileId=210	2023/11/16	The English report is the first edition published on June 3, 2014

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
152	Fenobucarb	3766-81-2	Agricultural, livestock and fishery products：Fenobucarb(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Carbamate	Inhibition of cholinesterase activity	Negative	Inhibition of ChE activity(more than 20%), Nervous system(Clonic convulsion, Straub tail, Fasciculation), Blood(Decreased WBC), Suppressed body weight gain, Liver(Increased organ weight), Muscle weakness of forelimb or hindlimb：Rat	Oral(feed)	Chronic toxicity study	2 years	Rat	Decreased WBC with increasing neutrophil ratio	NOAEL: 4.1 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 insufficient number of animals for carcinogenicity study:3	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120521001&fileId=201	2013/9/9	–
153	Fenothiocarb	62850-32-2	Agricultural products：Fenothiocarb(Parent compound only)	Pesticides	Insecticide(Acaricide)	Thiocarbamate	Inhibition of metabolic pathway	Negative	Liver(Thickening in branch of intrahepatic portal vein), Blood(Anemia)／Decreased corpus luteum, Reduced implantation rate：Rat(Maternal), External malformation(Encephalocele)：Rat(Fetus)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Decreased body weight：Male	NOAEL: 1.5 mg/kg bw per day	ADI: 0.015 mg/kg bw	SF:100	Oral(feed)	Two-generation reproductive activity study	Rat	Suppressed body weight gain, Decreased feed intake：Male	NOAEL: 13 mg/kg bw per day	0.13 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100913530&fileId=201	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100913530&fileId=201	2014/12/2	–
154	Fenoxanil	115852-48-7	Food products：Fenoxanil(Parent compound only)	Pesticides	Fungicide	Phenoxyamide	Inhibition of melanin biosynthesis	Negative	Liver(Increased absolute/relative weight, Hepatocellular hypertrophy)／Increased incidence of hepatocellular adenoma：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Diffuse hepatocellular hypertrophy, Increased Glob and calcium	NOAEL: 0.7 mg/kg bw per day	ADI: 0.007 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080205002&fileId=002	2008/11/27	–
155	Fenoxasulfone	639826-16-7	Agricultural and fishery products：Fenoxasulfone(Parent compound only)	Pesticides	Herbicide	Isoxazoline	Inhibition of very long chain fatty acid synthesis	Negative	Nervous system(Degeneration of peripheral nerve fibers：Dog), Kidney(Papillary necrosis, Chronic nephrosis), Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Renal papillary necrosis：Male	NOAEL: 17.6 mg/kg bw per day	ADI: 0.17 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718569&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718569&fileId=201	2013/10/21	–
156	Fenpicoxamid	517875-34-2	Agricultural and livestock products：Fenpicoxamid(Parent compound only)	Pesticides	Fungicide	Picolinamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy：Mouse)、Thyroid(Follicular dilatation：Rat), Kidney(Chronic progressive glomerulonephritis：Rat)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Centrilobular/Midlobular hepatocellular hypertrophy with acidophilic change	NOAEL: 32.1 mg/kg bw per day	ADI: 0.32 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180621049&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180621049&fileId=210	2019/5/28	–
157	Fenpropathrin	39515-41-8	Agricultural and livestock products：Fenpropathrin(Parent compound only)	Pesticides	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Nervous system(Tremor), Suppressed body weight gain	Oral(feed)	Chronic toxicity study	1 year	Dog	Tremor	NOAEL: 2.79 mg/kg bw per day	ADI: 0.027 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 3 mg/kg bw per day	0.03 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190905057&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190905057&fileId=210	2020/6/16	–
158_1	fenpropidin	67306-00-7	fenpropidin(Parent compound only)	Pesticides	Fungicide	piperidine	Inhibition of sterol biosynthesis	Negative	Suppressed body weight gain、Stomach (hyperkeratosis：Rat, Mouse)，Esophagus（hyperkeratosis：Rat, Mouse）、Urinary bladder(Epithelial hyperplasia：Rat, Dog) /Increased incidence of abnormal fetus（Truncus arteriosus communis, severe sternum segmentation sequence abnormality：Rabbit)	Oral(feed)	Combined chronic toxicity / carcinogenicity study	2 years	Rat	Increased potassium	NOAEL: 1.68 mg/kg bw per day	ADI: 0.016mg/kg bw	SF:100	Oral (gavage)	Subacute toxicity study	Mouse	Reduced motor activity	NOAEL: 359 mg/kg bw per day	3.5 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/evaluationDocument/show/kya20230831145	2024/3/21	–
158_2	fenpropidin	67306-00-7	fenpropidin(Parent compound only)	Pesticides	Fungicide	piperidine	Inhibition of sterol biosynthesis	Negative	Suppressed body weight gain、Stomach (hyperkeratosis：Rat, Mouse)，Esophagus（hyperkeratosis：Rat, Mouse）、Urinary bladder(Epithelial hyperplasia：Rat, Dog) /Increased incidence of abnormal fetus（Truncus arteriosus communis, severe sternum segmentation sequence abnormality：Rabbit)	Oral(feed)	Combined chronic toxicity / carcinogenicity study	2 years	Rat	Increased potassium	NOAEL: 1.68 mg/kg bw per day	ADI: 0.016mg/kg bw	SF:100	Oral (gavage)	Developmental toxicity study	Rabbit	Decreased feces、Suppressed body weight gain：Maternal Increased incidence of abnormal fetus：Fetus	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw （for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/evaluationDocument/show/kya20230831145	2024/3/21	–
159	Fenpyrazamine	473798-59-3	Agricultural products：Fenpyrazamine(Parent compound only)	Pesticides	Fungicide	Pyrazolinone	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell)／Decreased average number of implantation site, Increased number of postimplantation loss, Internal variation(Multilobular liver, Renal pelvic dilatation), Skeletal variation(Zygomatic arch fusion)：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative liver weight	NOAEL: 12.7 mg/kg bw per day	ADI: 0.12 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male	NOAEL: 80 mg/kg bw	0.8 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119016&fileId=210	2022/3/9	–
160	Fenpyroximate	111812-58-9	・Agricultural products：Fenpyroximate, tert-butyl=(Z)-α-(1,3-dimethyl-5-phenoxypirazol-4-ylmethylene-aminooxy)-P-toluate ・Livestock products：Fenpyroximate(Parent compound only)	Pesticides	Insecticide(Acaricide)	Phenoxypyrazole	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Decreased feed intake, Diarrhea：Dog／Increased incidence of fetuses with retinal anomaly：Rabbit	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 0.97 mg/kg bw per day	ADI: 0.0097 mg/kg bw	SF:100	Oral(gavage or capsule)	Comprehensive evaluation of single-dose, repeated-dose, subacute and chronic toxicity study	Dog	Diarrhea	NOAEL: 1.5 mg/kg bw	0.015 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210519112&fileId=210	2021/8/24	–
161	Fenquinotrione	1342891-70-6	Agricultural and livestock products：Fenquinotrione(Parent compound only)	Pesticides	Herbicide	Triketone	Inhibition of 4-HPPDase	Negative	Eye(keratitis：Rat), Liver(Centrilobular hepatocellular hypertrophy), Gallbladder(Calculus：Mouse)／Corneal squamous cell carcinoma：Rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	keratitis：Parent, Delayed preputial separation：Male offspring	NOAEL: 0.166 mg/kg bw per day	ADI: 0.0016 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160323543&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200728098&fileId=210	2020/10/13	The English report is the first edition published on March 7, 2017
162	Fenthion	55-38-9	Agricultural, livestock and fishery products：Fenthion, O,O-dimethyl O-4-methylsulfinyl-m-tolyl phosphorothioate, O,O-dimethyl O-4-methylsulfonyl-m-tolyl phosphorothioate, O,O-dimethyl O-4-methylthio-m-tolyl phosphate, O,O-dimethyl O-4-methylsulfinyl-m-tolyl phosphate, O,O-dimethyl O-4-methylsulfonyl-m-tolyl phosphate	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of ChE activity(more than 20%)／Reduced conception rate	Oral(capsule)	Repeated-dose toxicity study	4 weeks	Human	No adverse effect observed at highest level(0.07 mg/kg bw per day)	NOAEL: 0.07 mg/kg bw per day	ADI: 0.0023 mg/kg bw	SF:30 interspecies variation:1 interindividual variation:10 insufficient number of data:3	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110117003&fileId=201	2013/9/30	–
163	Fentrazamide	158237-07-1	Food products：Fentrazamide(Parent compound only)	Pesticides	Herbicide	–	–	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Inhibition of NTE activity, Liver(Hepatocellular hypertrophy), Urinary bladder(Hyperplasia of transitional cell, Transitional cell papilloma/carcinoma)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP：Female	NOAEL: 0.52 mg/kg bw per day	ADI: 0.0052 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080205004&fileId=002	2008/12/4	–
164	Fenvalerate	51630-58-1	Agricultural and livestock products：Fenvalerate(Parent compound only：including Esfenvalerate)	Pesticides & Veterinary Medicinal Products	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Nervous system(Tremor, Increased hyperreflexia), Liver(Multiple granuloma)、Spleen(Multiple granuloma)、Lymph node(Multiple granuloma)、Adrenal gland(Multiple granuloma)	Oral(feed)	three-generation reproductive activity study	–	Rat	Suppressed body weight gain：Parent	NOAEL: 1.7 mg/kg bw per day	ADI: 0.017 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718584&fileId=201	2013/7/29	–

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
165	Ferimzone	89269-64-7	Agricultural and fishery products：Ferimzone、(E)-2'-methylacetophenone4,6-dimethylpyrimidin-2-ylhydrazone Livestock products: Ferimzone (Parent compound only)	Pesticides	Fungicide	Pyrimidinonehydrazone	—	Negative	Liver(Centrilobular hepatocellular hypertrophy), Blood(Anemia)／Increased incidence of nasal cavity squamous cell carcinoma：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 1.94 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	①②Oral (gavage)③Oral (capsule)	①② Pharmacological study③Chronic toxicity study	①Mouse② Rabbit③Dog	①Ataxia, Abnormal gait ② Reduced motor activity, Reduced hopping response ③Suppressed body weight gain	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231025171&fileId=211	2024/10/30	—
166	Fipronil	120068-37-3	・Agricultural products：Fipronil(Parent compound only) ・Livestock products：Fipronil, Fipronildesulfinyl	Pesticides & Veterinary Medicinal Products	Insecticide	Phenylpyrazole	Action on interference with the passage of chloride ions through the gammaaminobutyric acid (GABA)-regulated chloride ion channe	Negative	Central nervous system(Convulsion), Liver(Increased organ weight), Thyroid(Increased organ weight：Rat) ／ Increased thyroid follicular cell tumor：Rat ／ Reduced fertility rate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Decreased Ht	NOAEL: 0.019 mg/kg bw per day	ADI: 0.00019 mg/kg bw	SF:100	Oral(capsule)	Subacute toxicity study	Dog	Anorexia	NOAEL: 2 mg/kg bw per day	0.02 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20151013447&fileId=201	2016/4/5	—
167	Flazasulfuron	104040-78-0	Agricultural products：Flazasulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Inflammatory cellula infiltration：Dog, Increased organ weight). Kidney(Chronic nephrosis：Rat), Muscle(Atrophy, Degeneration：Dog)／Ventricular septal defect：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Chronic nephrosis：Male	NOAEL: 1.31 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male	NOAEL: 50 mg/kg bw	0.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20091214003&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20091214003&fileId=210	2020/12/15	—
168	Flometoquin	875775-74-9	Agricultural products：Flometoquin(Parent compound only)	Pesticides	Insecticide	Quinoline	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular fatty degeneration), Ovary(Atrophy, Decreased number of ovarian follicle)／Increased incidence of ovarian tumor：Female rat, Increased incidence of small intestinal adenocarcinoma：Male mouse／Decreased number of small ovarian follicle, implantation and infant	Oral(gavage)	Developmental toxicity study	6 - 27 days of pregnancy	Rabbit	Death：Maternal	NOAEL: 0.8 mg/kg bw per day	ADI: 0.008 mg/kg bw	SF:100	Oral(feed)	Two-generation reproductive activity study	Rat	Decreased number of ovarian follicle	NOAEL: 4.45 mg/kg bw per day	0.044 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150113255&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210825176&fileId=210	2021/10/26	The English report is the first edition published on March 7, 2017
169_1	Flonicamid	158062-67-0	・Agricultural products：Flonicamid, N-(4-trifluoromethylnicotinoyl)glycine, 4-trifluoromethylnicotinic acid ・Livestock products：Flonicamid, 4-trifluoromethylnicotinamide, 4-trifluoromethylnicotinic acid	Pesticides	Insecticide	Pyridinecarboxyamide	Suppression of eating behavior	Negative	Liver(Hepatocellular hypertrophy, Altered hepatocellular foci), Kidney(Chronic nephrosis, Proximal tubular vacuolation：Rat), Lung(Hyperplasia/Hypertrophy of terminal bronchiolar squamous cell：Mouse), Blood(Anemia)／Increased incidence of lung tumor：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased chronic nephrosis：Male	NOAEL: 7.32 mg/kg bw per day	ADI: 0.073 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Extension of landing hindlimb-spread：Female	NOAEL: 300 mg/kg bw	3 mg/kg bw (for general population)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230524082&fileId=210	2023/7/20	—
169_2	Flonicamid	158062-67-0	・Agricultural products：Flonicamid, N-(4-trifluoromethylnicotinoyl)glycine, 4-trifluoromethylnicotinic acid ・Livestock products：Flonicamid, 4-trifluoromethylnicotinamide, 4-trifluoromethylnicotinic acid	Pesticides	Insecticide	Pyridinecarboxyamide	Suppression of eating behavior	Negative	Liver(Hepatocellular hypertrophy, Altered hepatocellular foci), Kidney(Chronic nephrosis, Proximal tubular vacuolation：Rat), Lung(Hyperplasia/Hypertrophy of terminal bronchiolar squamous cell：Mouse), Blood(Anemia)／Increased incidence of lung tumor：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased chronic nephrosis：Male	NOAEL: 7.32 mg/kg bw per day	ADI: 0.073 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Increased incidence of cervical rib：Fetus	NOAEL: 100 mg/kg bw per day	1 mg/kg bw (for women of childbearing age)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230524082&fileId=210	2023/7/20	—
170	Florasulam	145701-23-1	Agricultural and livestock products：Florasulam(Parent compound only)	Pesticides	Herbicide	Triazolopyrimidine	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain, Kidney(Increased organ weight, Hypertrophy of collecting tubular cell), Adrenal gland(Vacuolation of the adrenal zona reticularis and fasciculata cell：Dog)	Oral(feed)	Chronic toxicity study	1 year	Dog	Decreased body weight and feed intake, Hypertrophy of renal collecting tubular cell, Vacuolation of the adrenal zona reticularis and fasciculata cells	NOAEL: 4.9 mg/kg bw per day	ADI: 0.049 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630147&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630147&fileId=210	2022/1/26	—
171	Florpyrauxifen-benzyl	1390661-72-9	Agricultural and livestock products：Florpyrauxifen-benzyl, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylic acid, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-hydroxyphenyl)-5-fluoropyridine-2-carboxylic acid	Pesticides	Herbicide	Allylpicolinic acid	Disturbance of hormonal effects	Negative	Slight suppressed body weight gain：Mouse	Oral(feed)	Carcinogenicity study	18 months	Mouse	No adverse effect observed at highest level(803 mg/kg bw per day)	NOAEL: 803 mg/kg bw per day	ADI: 8 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121131&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121131&fileId=210	2019/6/4	—
172	Fluacrypyrim	178813-81-5	Agricultural products：Fluacrypyrim(Parent compound only)	Pesticides	Insecticide (Acaricide)	—	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Increased absolute/relative weight)、Duodenum(Thickening, Hyperplasia/Dysplasia of mucosa：Mouse)、Cecum(Pigment deposition：Mouse)／Increased hepatocellular adenoma/cartinoma：Male rat and Mouse, Increased dermal histiocytic sarcoma：Male rat, Increased duodenal adenoma/adenocarcinoma：MaleMouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Basophilic altered hepatocellular foci	NOAEL: 5.9 mg/kg bw per day	ADI: 0.059 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070306011&fileId=002	2008/10/16	—
173_1	Fluazifop (as fluazifop-butyl and fluazifop-P-butyl)	69806-50-4 (as fluazifop-butyl), 79241-46-6 (as fluazifop-P-butyl)	Agricultural and livestock products：Fluazifop-butyl, Fluazifop-P-butyl, Fluazifop acid	Pesticides	Herbicide	Aryloxyphenoxypropionic	Inhibition of fatty acid biosynthesis	Negative	Liver(Increased organ weight), Kidney(Increased organ weight, Chronic nephrosis), Testis(Seminiferous tubular degeneration：Hamster, Decreased organ weight, Atrophy of germinal epithelium in seminiferous tubule), Eye(Cataract：Dog and Hamster)／Extended gestation period, Decreased number of implantation, Decreased conception rate：Rat(Parent), Diaphragmatic Hernia, Hydronephrosis：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Chronic nephrosis	NOAEL: 0.44 mg/kg bw per day	ADI: 0.0044 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable (for general population)	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820281&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820281&fileId=210	2018/3/6	The English report is the first edition published on July 7, 2015
173_2	Fluazifop (as fluazifop-butyl and fluazifop-P-butyl)	69806-50-4 (as fluazifop-butyl), 79241-46-6 (as fluazifop-P-butyl)	Agricultural and livestock products：Fluazifop-butyl, Fluazifop-P-butyl, Fluazifop acid	Pesticides	Herbicide	Aryloxyphenoxypropionic	Inhibition of fatty acid biosynthesis	Negative	Liver(Increased organ weight), Kidney(Increased organ weight, Chronic nephrosis), Testis(Seminiferous tubular degeneration：Hamster, Decreased organ weight, Atrophy of germinal epithelium in seminiferous tubule), Eye(Cataract：Dog and Hamster)／Extended gestation period, Decreased number of implantation, Decreased conception rate：Rat(Parent), Diaphragmatic Hernia, Hydronephrosis：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Chronic nephrosis	NOAEL: 0.44 mg/kg bw per day	ADI: 0.0044 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat and Rabbit	Delayed ossification：Fetus	NOAEL: 2 mg/kg bw	0.02 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820281&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180124154&fileId=210	2018/3/6	The English report is the first edition published on July 7, 2015
174_1	Fluazinam	79622-59-6	Agricultural and livestock products：Fluazinam(Parent compound only)	Pesticides	Fungicide	N-Phenylpyridinamine	Inhibition of hypha growth	Negative	Liver(Hepatocellular hypertrophy), Blood(Anemia)／Increased thyroid tumor：Rat, Increased hepatocellular tumor：Mouse	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased number of WBC and Neu	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b) Developmental toxicity study	(a)(b)Rat	(a)Soft feces, Decreased mobility (b)Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw (for general population)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630146&fileId=210	2021/8/31	—
174_2	Fluazinam	79622-59-6	Agricultural and livestock products：Fluazinam(Parent compound only)	Pesticides	Fungicide	N-Phenylpyridinamine	Inhibition of hypha growth	Negative	Liver(Hepatocellular hypertrophy), Blood(Anemia)／Increased thyroid tumor：Rat, Increased hepatocellular tumor：Mouse	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased number of WBC and Neu	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Increased embryo death of postimplantation：Fetus	NOAEL: 2 mg/kg bw per day	0.02 mg/kg bw (for women of childbearing age)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630146&fileId=210	2021/8/31	—
175_1	Flubendiamide	272451-65-7	Agricultural and livestock products：Flubendiamide(Parent compound only)	Pesticides	Insecticide	Iodophthalamide	Activating calcium release channels of ryanodine-sensitive intracellular	Negative	Liver(Hepatocellular hypertrophy, Hepatocellular fatty degeneration), Thyroid(Hypertrophy of follicular epithelial cell), Eye(Enlargement of eyeballs：Rat)	Oral(feed)	Carcinogenicity study	2 years	Rat	Fatty degeneration in centrilobular hepatocytes	NOAEL: 1.7 mg/kg bw per day	ADI: 0.017 mg/kg bw	SF:100	Oral(feed)	Comprehensive evaluation of one- and twogeneration reproductive toxicity studies and developmental neurotoxicity study	Rat	Synechia, Haemorrhage, Iritis and Cataract：Offspring	NOAEL: 15 mg/kg bw per day	0.15 mg/kg bw (for women during lactation)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160713073&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181212146&fileId=210	2019/2/5	The English report is the fifth edition published on July 18, 2017

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
175_2	Flubendiamide	272451-65-7	Agricultural and livestock products：Flubendiamide(Parent compound only)	Pesticides	Insecticide	Iodophthalamide	Activating calcium release channels of ryanodine-sensitive intracellular	Negative	Liver(Hepatocellular hypertrophy, hepatocellular Fatty degeneration), Thyroid(Hypertrophy of follicular epithelial cell), Eye(Enlargement of eyeballs：Rat)	Oral(feed)	Carcinogenicity study	2 years	Rat	Fatty changes in centrilobular hepatocytes	NOAEL: 1.7 mg/kg bw per day	ADI: 0.017 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable (for general population)	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160713073&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181212146&fileId=210	2019/2/5	The English report is the fifth edition published on July 18, 2017
176	Flucetosulfuron	412928-75-7	Agricultural products：Flucetosulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Testis(Decreased organ weight, Vacuolization of seminiferous tubule), Epididymis(Decreased number of spermatozoon)／Increased incidence of testicular interstitial cell tumors：Rat／Ossification defective：Fetus	Oral(feed)	Two-generation reproductive activity study	–	Rat	Increased absolute/relative Spleen weight：Offspring	NOAEL: 4.1 mg/kg bw per day	ADI: 0.041 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070522004&fileId=002	2008/7/17	–
177	Fludioxonil	131341-86-1	Agricultural, livestock and fishery products：Fludioxonil(Parent compound only)	Pesticides & Additives	Fungicide	Phenylpyrrole	Inhibition of glycerol biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy), Kidney(Chronic nephrosis：Rat, Nephrosis：Mouse), Blood(Anemia)	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 33.1 mg/kg bw per day	ADI: 0.33 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity	LOAEL: 500 mg/kg bw	2.5 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220323040&fileId=210	2022/5/31	–
178	Fluensulfone	318290-98-1	Agricultural and livestock products：Fluensulfone(Parent compound only)	Pesticides	Nematicide	Fluoroalkene	–	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Hepatocellular hypertrophy), Kidney(Increased organ weight), Lung(Bronchiolization)／Increased incidence of bronchiolo-alveolar adenoma：Female mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 1.4 mg/kg bw per day	ADI: 0.014 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Listless	LOAEL: 100 mg/kg bw	0.33 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150623386&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208249&fileId=210	2022/1/26	The English report is the first edition published on December 22, 2015
179	Flufenacet	142459-58-3	・Agricultural products：Flufenacet, metabolites with fluorophenyl structure ・Livestock products：Flufenacet(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of fatty acid biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hyperplasia of follicle epithelium), Kidney(Renal pelvic epithelial hyperplasia), Blood(Increased MetHb, Anemia), Eye(Cataract：Mouse)／Delayed ossification, Skeletal variation：Rat(Fetus), Skeletal variation：Rabbit(Fetus)／Vacuolization of cerebral cortex：Dog, Swelling of axon：Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Decreased Hb	NOAEL: 1.14 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110820275&fileId=201	2013/11/11	–
180	Flufenoxuron	101463-69-8	Agricultural, livestock and fishery products：Flufenoxuron(Parent compound only)	Pesticides	Insecticide	Benzophenylurea	Inhibition of chitin synthesis	Negative	Suppressed body weight gain, Blood(Anemia)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased WBC：Female	NOAEL: 3.7 mg/kg bw per day	ADI: 0.037 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Report https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20040803002&fileId=003	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210209018&fileId=211	2021/6/29	The English report is the first edition published on April 19, 2007
181	Flufenpyr-ethyl	188489-07-8	Agricultural products：Flufenpyr-ethyl(Parent compound only)	Pesticides	Herbicide	Pyridazine	Inhibition of chlorophyll biosynthesis	Negative	Liver(Increased absolute/relative weight, Centrilobular hepatocellular vacuolation)	Oral(feed)	Carcinogenicity study	unspecified	Mouse	Hepatotoxicity	NOAEL: 39.9 mg/kg bw per day	ADI: 0.39 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070112006&fileId=002	2008/10/2	–
182	Flumetsulam	98967-40-9	Agricultural products：Flumetsulam(Parent compound only)	Pesticides	Herbicide	Triazolopyrimidine	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Hepatitis), Kidney(Nephritis)	Oral(feed)	Chronic toxicity study	1 year	Dog	Hepatitis, Bile stasis, Atrophy of renal tubule	NOAEL: 100 mg/kg bw per day	ADI: 1 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070605007&fileId=201	2013/4/22	–
183_1	Flumioxazin	103361-09-7	Agricultural and livestock products：Flumioxazin(Parent compound only)	Pesticides	Herbicide	N-Phenylphthalimide	Inhibition of protoporphyrinogen oxidase activity	Negative	Blood(Anemia), Liver(Hepatocellular hypertrophy, Increased organ weight)／Reduced copulation rate, Reduced gestation rate, Decreased survival rate at four days postnatal, Cardiovascular malformation, skeletal malformation：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased extramedullary hematopoiesis in spleen	NOAEL: 1.8 mg/kg bw per day	ADI: 0.018 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable (for general population)	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080617002&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220525070&fileId=210	2022/10/12	The English report is the first edition published on May 20, 2014
183_2	Flumioxazin	103361-09-7	Agricultural and livestock products：Flumioxazin(Parent compound only)	Pesticides	Herbicide	N-Phenylphthalimide	Inhibition of protoporphyrinogen oxidase activity	Negative	Blood(Anemia), Liver(Hepatocellular hypertrophy, Increased organ weight)／Reduced copulation rate, Reduced gestation rate, Decreased survival rate at four days postnatal, Cardiovascular malformation, skeletal malformation：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased extramedullary hematopoiesis in spleen	NOAEL: 1.8 mg/kg bw per day	ADI: 0.018 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Ventricular septal defect：Fetus	NOAEL: 3 mg/kg bw per day	0.03 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080617002&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220525070&fileId=210	2022/10/12	The English report is the first edition published on May 20, 2014
184_1	Fluopicolide (2,6-dichlorobenzamide)	239110-15-7(as Fluopicolide)	Agricultural products：Fluopicolide, 2,6-dichlorobenzamide	Pesticides	Fungicide	Dichlorobenzamide	–	Negative	Liver(Hepatocellular hypertrophy, hepatocellular vacuolation), Kidney(Basophilic change of renal tubule：Rat)／Increased incidence of hepatocellular adenoma：Mouse／Skeletal anomaly：Rat(Fetus)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Increased absolute/relative liver weight, Hepatocellular hypertrophy	NOAEL: 7.9 mg/kg bw per day	ADI: 0.079 mg/kg bw (as Fluopicolide)	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hypothermia	NOAEL: 100 mg/kg bw	1 mg/kg bw (as Fluopicolide)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=Kya20170524029&fileId=201	2017/8/8	–
184_2	Fluopicolide (2,6-dichlorobenzamide)	239110-15-7(as Fluopicolide)	Agricultural products：Fluopicolide, 2,6-dichlorobenzamide	Pesticides	Fungicide	Dichlorobenzamide	–	Negative	Liver(Hepatocellular hypertrophy, hepatocellular vacuolation), Kidney(Basophilic change of renal tubule：Rat)／Increased incidence of hepatocellular adenoma：Mouse／Skeletal anomaly：Rat(Fetus)	Oral(feed)	Chronic toxicity study	2 years	Rat	Acidophilic altered hepatocellular foci	NOAEL: 4.7 mg/kg bw per day	ADI: 0.047 mg/kg bw (as 2,6-dichlorobenzamide)	SF:100	Oral(gavage)	Acute toxicity study	Mouse	Sedation, Abnormal gait	LOAEL: 156 mg/kg bw	0.52 mg/kg bw (as 2,6-dichlorobenzamide)	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=Kya20170524029&fileId=201	2017/8/8	–
185	Fluopyram	658066-35-4	Agricultural and livestock products：Fluopyram(Parent compound only)	Pesticides	Fungicide	Pyridinylethylamide	Inhibition of electron transfer system in photosynthesis	Negative	Eye(Corneal opacity, Retinal fading：Rat), Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy), Kidney(Increased organ weight, Chronic nephrosis), Thyroid(Hypertrophy of follicular epithelial cell)／Increased incidence of hepatocellular adenoma：Female rat, Increased incidence of thyroid follicular cell adenomas：Male mouse／Internal and skeletal variation：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy：Male	NOAEL: 1.2 mg/kg bw per day	ADI: 0.012 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Female	NOAEL: 50 mg/kg bw	0.5 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190319053&fileId=210	2019/6/18	–
186	Fluoroimide	41205-21-4	Agricultural products：Fluoroimide(Parent compound only)	Pesticides	Fungicide	Maleimide	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Reduced feed intake, Blood(Anemia), Forestomach(Mucosal edema)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased AST and ALT：Male	NOAEL: 9.28 mg/kg bw per day	ADI: 0.092 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120123351&fileId=201	2013/10/21	–
187	Fluoxastrobin	361377-29-9	・Agricultural products：Fluoxastrobin(including Z body) ・Livestock products：Fluoxastrobin(including Z body), 6-(2-chlorophenoxy)-5-fluoro-4-pyrimidiol	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Urinary system(Renipelvic/Urethral calculus)	Oral(feed)	Chronic toxicity study	1 year	Dog	Hepatocellular hypertrophy	NOAEL: 1.5 mg/kg bw per day	ADI: 0.015 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140909226&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200728099&fileId=210	2020/10/13	The English report is the first edition published on March 24, 2015

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
188	Flupyradifurone	951659-40-8	Agricultural and livestock products：Flupyradifurone(Parent compound only)	Pesticides	Insecticide	—	Action on the nicotinic acetylcholine receptor	Negative	Suppressed body weight gain, Liver(Centrilobular hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell), Muscle(Degeneration, Atrophy：Dog)／Decreased number of estrus cycles, Decreased total number of implantation, Decreased number of littermate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy：Male	NOAEL: 3.16 mg/kg bw per day	ADI: 0.031 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Mydriasis：Female	NOAEL: 35 mg/kg bw	0.35 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220525069&fileId=210	2022/7/13	—
189	Flupyrimin	1689566-03-7	Agricultural, livestock and fishery products：Flupyrimin(Parent compound only)	Pesticides	Insecticide	—	Action on the nicotinic acetylcholine receptor	Negative	Liver(Centrilobular hepatocellular hypertrophy, Hepatocellular necrosis), Thyroid(Hypertrophy of follicular epithelial cell：Rat)／Increased incidence of hepatocellular adenoma/carcinoma：Rat, Increased incidence of total of thyroid follicular cell adenoma and carcinoma：Male rat, Increased incidence of total of hepatocellular adenoma and carcinoma：Male mouse, Increased incidence of total of hepatocellular adenoma：Female mouse／Decreased numbers of infant：Rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy：Male	NOAEL: 1.12 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	Oral(unspecified)	Developmental toxicity study	Rabbit	Decreased body weight：Maternal	NOAEL: 8 mg/kg bw per day	0.08 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20171122126&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20171122126&fileId=210	2018/7/24	—
190	Fluridone	59756-60-4	Agricultural products：Fluridone(Parent compound only)	Pesticides	Herbicide	Pyridazone	Inhibition of carotenoid biosynthesis	Negative	Liver(Increased absolute/relative weight, Centrilobular hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Decreased body weight, Increased absolute/relative liver and kidney weight：Male	NOAEL: 7.65 mg/kg bw per day	ADI: 0.076 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030059&fileId=06_001_001	2007/8/23	—
191	Flusilazole	85509-19-9	Agricultural products：Flusilazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Increased absolute/relative weight, Hepatocellular hypertrophy/Vacuolization), Urinary bladder(Hyperplasia/Vacuolization of transitional epithelium)／Increased urinary bladder transitional cell papilloma/carcinoma：Rat, Increased interstitial cell tumor：Male rat, Increased hepatocellular adenoma/carcinoma：Mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Centrilobular hepatocellular hypertrophy	NOAEL: 0.14 mg/kg bw per day	ADI: 0.0014 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070806008&fileId=002	2009/7/16	—
192	Fluthiacet-methyl	117337-19-6	Agricultural products：Fluthiacet-methyl(Parent compound only)	Pesticides	Herbicide	Isourazole	Inhibition of chlorophyll biosynthesis	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Degenerative necrosis)／Increased incidence of hepatocellular cartinoma：Male mouse, Increased incidence of pancreatic exocrine cell adenoma, islet cell adenoma：MaleRat	Oral(feed)	Carcinogenicity study	18 months	Mouse	Hepatocellular degeneration	NOAEL: 0.1 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111118285&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20161018125&fileId=201	2017/1/17	The English report is the first edition published on December 2, 2014
193	Flutianil	958647-10-4	Agricultural products：Flutianil(Parent compound only)	Pesticides	Fungicide	Thiazolidine	—	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	No adverse effect observed at highest level(249 mg/kg bw per day)	NOAEL: 249 mg/kg bw per day	ADI: 2.4 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201214152&fileId=210	2021/3/16	—
194	Flutolanil	66332-96-5	Agricultural, livestock and fishery products：Flutolanil(Parent compound only)	Pesticides	Fungicide	Amide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Increased organ weight)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Decreased splenocyte ingredients：Male	NOAEL: 8.7 mg/kg bw per day	ADI: 0.087 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220421059&fileId=210	2022/7/20	—
195	Flutriafol	76674-21-0	Agricultural and livestock products：Flutriafol(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular fatty degeneration, Centrilobular hepatocellular hypertrophy：Rat and Mouse, Hemosiderin deposition：Dog), Blood(Anemia)／Increased Skeletal anomaly：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative liver weight	NOAEL: 1.05 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(capsule)	Developmental toxicity study	Rabbit	Suppressed body weight gain：Maternal	NOAEL: 7.5 mg/kg bw per day	0.075 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20171026117&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208250&fileId=210	2022/1/26	The English report is the first edition published on May 22, 2018
196	Fluxametamide	928783-29-3	Agricultural and fishery products：Fluxametamide(Parent compound only)	Pesticides	Insecticide (Acaricide)	Isoxazoline	Effects on GABA receptors	Negative	Lung(Alveolus macrophage accumulation), Small intestine(Vacuolization of epithelial cell), Liver(Hepatocellular vacuolation)／Increased incidence of thyroid follicular cell adenoma：Male rat, Increased incidence of hepatocellular adenoma：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular vacuolation	NOAEL: 0.85 mg/kg bw per day	ADI: 0.0085 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170315211&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119017&fileId=210	2022/3/9	The English report is the first edition published on December 12, 2017
197	Fluxapyroxad	907204-31-3	Agricultural and livestock products：Fluxapyroxad(Parent compound only)	Pesticides	Fungicide	Carboxyamide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy, Centrilobular hepatocellular fatty degeneration：Mouse, Hepatocellular pigment deposition：Dog), Thyroid(Hypertrophy/Hyperplasia of follicular cell：Rat), Bone(Hyperostosis：Rat), Tooth(White changing：Rat and Mouse)／Increased hepatocellular tumor：Rat, Increased incidence of total of thyroid adenoma and carcinoma：MaleRat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 2.1 mg/kg bw per day	ADI: 0.021 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Reduced locomotor activity：Female male, Decreased number of rearings：Male	NOAEL: 125 mg/kg bw	1.2 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221019191&fileId=210	2022/12/14	—
198_1	Folpet	133-07-3	Agricultural products：Folpet(Parent compound only)	Pesticides	Fungicide	Phthalimide	Inhibition of SH-enzymes	Negative	Forestomach(Hyperkeratosis：Rat), Duodenum(Mucosal hyperplasia：Mouse)／Increased incidence of duodenum adenoma/adenocarcinoma：Mouse／Hydrocephaly, Stomach abnormality：Rabbit(Fetus)	(a)(b)(c) Oral(gavage) (d)Oral(capsule)	(a)(b)(c) Developmental toxicity study (d)Chronic toxicity study	(a)6 - 19 days of pregnancy (b)7 - 19 days of pregnancy (c)6 - 28 days of pregnancy (d)1 year	(a)Rat (b)(c) Rabbit (d)Dog	(a)Suppressed body weight gain：Maternal (b)Suppressed body weight gain：Maternal, 13th Ribs：Fetus (c)Decreased body weight, Suppressed body weight gain：Maternal, Hydrocephaly：Fetus (d)Suppressed body weight gain	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable (for general population)	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20060718035&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20060718035&fileId=201	2017/3/7	—
198_2	Folpet	133-07-3	Agricultural products：Folpet(Parent compound only)	Pesticides	Fungicide	Phthalimide	Inhibition of SH-enzymes	Negative	Forestomach(Hyperkeratosis：Rat), Duodenum(Mucosal hyperplasia：Mouse)／Increased incidence of duodenum adenoma/adenocarcinoma：Mouse／Hydrocephaly, Stomach abnormality：Rabbit(Fetus)	(a)(b)(c) Oral(gavage) (d)Oral(capsule)	(a)(b)(c) Developmental toxicity study (d)Chronic toxicity study	(a)6 - 19 days of pregnancy (b)7 - 19 days of pregnancy (c)6 - 28 days of pregnancy (d)1 year	(a)Rat (b)(c) Rabbit (d)Dog	(a)Suppressed body weight gain：Maternal (b)Suppressed body weight gain：Maternal, 13th Ribs：Fetus (c)Decreased body weight, Suppressed body weight gain：Maternal, Hydrocephaly：Fetus (d)Suppressed body weight gain	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Hydrocephaly：Fetus	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20060718035&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20060718035&fileId=201	2017/3/7	—
199	Foramsulfuron	173159-57-4	Agricultural products：Foramsulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Decreased body weight, Suppressed body weight gain, Decreased feed intake	Oral(gavage)	Developmental toxicity study	6 - 18 days of pregnancy	Rabbit	Decreased body weight and feed intake, Suppressed body weight gain：Maternal	NOAEL: 50 mg/kg bw per day	ADI: 0.5 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201214154&fileId=210	2021/6/22	—
200	Formetanate hydrochloride	23422-53-9	Agricultural products：Formetanate hydrochloride(Parent compound only)	Pesticides	Insecticide (Acaricide)	Carbamate	Inhibition of cholinesterase activity	Negative	Inhibition of ChE activity(more than 20%)	Oral(gavage)	Acute neurotoxicity study	Single	Rat	Inhibition of brain and whole blood ChE activity(more than 20%)	NOAEL: 0.1 mg/kg bw	ADI: 0.001 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325010&fileId=002	2010/1/7	—

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
201	Fosetyl (Fosetyl-aluminium)	39148-24-8 (as Fosetyl-aluminium)	Agricultural products：Fosetyl, Phosphorous acid	Pesticides	Fungicide	Organophosphorus	Inhibition of spore germination	Negative	Urinary bladder(Inflammation, Hyperplasia of transitional epithelium：Male rat), Testis(Seminiferous tubular degeneration：Dog)／Increased urinary bladder transitional cell tumor：Male rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Inflammation of urinary bladder：Male	NOAEL: 88 mg/kg bw per day	ADI: 0.88 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101110016&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101110016&fileId=201	2016/1/26	–
202_1	Fosthiazate	98886-44-3	Agricultural products：Fosthiazate(Parent compound only)	Pesticides	Insecticide	Organophosphoramidate	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Adrenal(Cytoplasmic vacuolation of the adrenocortical zona fasciculata), Blood(Anemia) ／ Disturbance of estrous cyclicity, Prolonged period for mating, Prolonged gestational period：Rat	Oral(feed)	AChE inhibitor study	104 weeks	Rat	Inhibition of erythrocyte AChE activity(more than 20%)	NOAEL: 0.205 mg/kg bw per day	ADI: 0.002 mg/kg bw	SF:100	Oral(gavage)	ChE inhibitor study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)：Offspring of 11 and 21 postnatal days and Young adult	NOAEL: 0.7 mg/kg bw	0.007 mg/kg bw (for general population)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718571&fileId=211	https://www.fsc.go.jp/fsciis/evaluationDocument/show/kya20230713118	2024/3/21	The English report is the first edition published on December 15, 2020
202_2	Fosthiazate	98886-44-3	Agricultural products：Fosthiazate(Parent compound only)	Pesticides	Insecticide	Organophosphoramidate	Inhibition of acetylcholinesterase activity	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Adrenal(Cytoplasmic vacuolation of the adrenocortical zona fasciculata), Blood(Anemia) ／ Disturbance of estrous cyclicity, Prolonged period for mating, Prolonged gestational period：Rat	Oral(feed)	AChE inhibitor study	104 weeks	Rat	Inhibition of erythrocyte AChE activity(more than 20%)	NOAEL: 0.205 mg/kg bw per day	ADI: 0.002 mg/kg bw	SF:100	Oral(feed)	AChE inhibitor study	Rat	Inhibition of erythrocyte AChE activity(20%以上)：Female	NOAEL: 0.205 mg/kg bw per day	0.002 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718571&fileId=211	https://www.fsc.go.jp/fsciis/evaluationDocument/show/kya20230713118	2024/3/21	The English report is the first edition published on December 15, 2020
203	Furametpyr	123572-88-3	Agricultural and fishery products：Furametpyr(Parent compound only)	Pesticides	Fungicide	Carboxyamide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular hypertrophy)／Increased incidence of internal variation：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Increased relative liver weight, Centrilobular hepatocellular hypertrophy	NOAEL: 0.7 mg/kg bw per day	ADI: 0.007 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute toxicity study (b) Pharmacological study	(a)Rat (b)Mouse	(a)Reduced motor activity (b)Decreased locomotor activity	NOAEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180808078&fileId=210	2019/2/5	–
204	Gibberellin	77-06-5 (as Gibberellin A3), 545-97-1 (as Gibberellin A1), 468-44-0 (as Gibberellin A4), 510-75-8 (as Gibberellin A7)	Agricultural products：Gibberellin(Parent compound only)	Pesticides	Plant Growth Regulator	–	Promotion of cell division	Negative	Suppressed body weight gain, GI tract (Soft feces), Liver(Altered hepatocellular foci：Rat)／Increased incidence of hepatocellular tumor：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased water intake	NOAEL: 112 mg/kg bw per day	ADI: 0.11 mg/kg bw	SF:1000 (interspecies variation:10 interindividual variation:10 insufficient number of data:10	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170125165&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170125165&fileId=210	2018/1/23	–
205	Glufosinate-ammonium	77182-82-2 (as Glufosinate-ammonium), 70033-13-5 (as Glufosinate-P sodium salt)	Agricultural and livestock products：Glufosinate(including Glufosinate-P), 3-[(methyl)phosphinico]propionic acid, L-2-acetamide-4-(methyl)phosphinate butyrate disodium salt	Pesticides	Herbicide	Amino acid	Inhibition of glutamine synthetase	Negative	Central nervous system(Sedation, Hunchback position, Increased locomotor activity , Cerebral neuropil vacuolation), Kidney(Increased organ weights), Blood(Anemia)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Increased absolute/relative kidney weight：F1(Parent) and F2(Offspring)	NOAEL: 0.91 mg/kg bw per day	ADI: 0.0091 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Decreased feed intake：Maternal	NOAEL: 1 mg/kg bw per day	0.01 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20240612079&fileId=210	2025/2/6	–
206	Glyphosate (Glyphosate-isopropylammonium, Glyphosate-ammonium, Glyphosate-potassium)	1071-83-6 (as Glyphosate), 38641-94-0 (as glyphosate-isopropylammonium), 40465-66-5 (as glyphosate-ammonium), 70901-12-1 & 39600-42-5 (as glyphosate-potassium)	・Agricultural products：Glyphosate, N-Acetylglyphosate ・Livestock products：Glyphosate(Parent compound only)	Pesticides	Herbicide	Amino acid	Inhibition of EPSP synthase	Negative	Suppressed body weight gain, GI tract(Diarrhea, Increased cecum weigth, Dilatation of bowel, Thickening of intestinal mucosa), Liver (Increased ALP, Hepatocellular hypertrophy)	(a)(d) Oral(gavage) (b)(c) Oral(capsule)	(a)(b)Subacute toxicity study (c)Chronic toxicity study (d)Developmental toxicity study	(a)(b)90 days (c)1year (d)6 - 18 days of pregnancy	(a)Rat (b)(c)Dog (d)Rabbit	(a)Loose feces, Diarrhea (b)Suppressed body weight gain (c)Diarrhea, Bloody feces (d)Loose feces, Miscarriage, Premature birth, Trend in suppressed body weight gain：Maternal	NOAEL: 100 mg/kg bw per day	ADI: 1 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=201	2016/7/12	Glyphosate evaluation is comprehensive judgment based on Glyphosate 1-5.
207	Glyphosate 1 (Glyphosate-isopropylammonium, Glyphosate-ammonium, Glyphosate-potassium)	1071-83-6 (as Glyphosate), 38641-94-0 (as glyphosate-isopropylammonium), 40465-66-5 (as glyphosate-ammonium), 70901-12-1 (as glyphosate-potassium)	Agricultural products：Glyphosate(Parent compound only)	Pesticides	Herbicide	Amino acid	Inhibition of EPSP synthase	Negative	GI tract (Diarrhea, Loose feces), Suppressed body weight gain／Increased fetuses with sternebrae unossified	Oral(gavage)	Developmental toxicity study	6 - 27 days of pregnancy	Rabbit	Diarrhea, Trend in loose feces：Maternal	NOAEL: 75 mg/kg bw per day	ADI: 0.75 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=201	2016/7/12	Glyphosate evaluation is comprehensive judgment based on Glyphosate 1-5 Please see #205.
208	Glyphosate 2 (Glyphosate-potassium)	1071-83-6 (as Glyphosate), 39600-42-5 (as glyphosate-potassium)	Agricultural products：Glyphosate, N-Acetylglyphosate	Pesticides	Herbicide	Amino acid	Inhibition of EPSP synthase	Negative	Suppressed body weight gain, Liver (Increased ALT and ALP)	Oral(gavage)	Developmental toxicity study	7 - 19days of pregnancy	Rabbit	Suppressed body weight gain：Maternal	NOAEL: 100 mg/kg bw per day	ADI: 1 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=201	2016/7/12	Glyphosate evaluation is comprehensive judgment based on Glyphosate 1-5 Please see #205.
209	Glyphosate 3 (Glyphosate-isopropylammonium)	1071-83-6 (as Glyphosate), 38641-94-0 (as glyphosate-isopropylammonium)	Agricultural products：Glyphosate(Parent compound only)	Pesticides	Herbicide	Amino acid	Inhibition of EPSP synthase	Negative	GI tract (Diarrhea, Dilatation of bowel, Thickening of intestinal mucosa), Kidney (Nephrosis), Liver (Increased ALP, Hepatocellular hypertrophy), Blood (Decreased RBC)	(a)Oral(gavage) (b)(c) Oral(capsule)	(a)(b)Subacute toxicity study (c)Chronic toxicity study	(a)(b)90 days (c)1year	(a)Rat (b)(c)Dog	(a)Loose feces, Diarrhea (b)Suppressed body weight gain (c)Diarrhea, Bloody feces	NOAEL: 100 mg/kg bw per day	ADI: 1 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=201	2016/7/12	Glyphosate evaluation is comprehensive judgment based on Glyphosate 1-5 Please see #205.
210	Glyphosate 4 (Glyphosate-isopropylammonium)	1071-83-6 (as Glyphosate), 38641-94-0 (as glyphosate-isopropylammonium)	Agricultural products：Glyphosate(Parent compound only)	Pesticides	Herbicide	Amino acid	Inhibition of EPSP synthase	Negative	Suppressed body weight gain, GI tract (Loose feces, Increased cecum weigth), Blood (Anemia)	Oral(gavage)	Developmental toxicity study	6 - 18 days of pregnancy	Rabbit	Loose feces, Miscarriage, Premature birth, Trend in suppressed body weight gain：Maternal	NOAEL: 100 mg/kg bw per day	ADI: 1 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=201	2016/7/12	Glyphosate evaluation is comprehensive judgment based on Glyphosate 1-5 Please see #205.

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
211	Glyphosate 5 (Glyphosate-isopropylammonium)	1071-83-6 (as Glyphosate), 38641-94-0 (as glyphosate-isopropylammonium)	Agricultural products : Glyphosate(Parent compound only)	Pesticides	Herbicide	Amino acid	Inhibition of EPSP synthase	Negative	GI tract (Diarrhea, Loose feces)	Oral(gavage)	Developmental toxicity study	7 - 19days of pregnancy	Rabbit	Death, Diarrhea, Suppressed body weight gain : Maternal	NOAEL: 200 mg/kg bw per day	ADI: 2 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216003&fileId=201	2016/7/12	Glyphosate evaluation is comprehensive judgment based on Glyphosate 1-5 Please see #205.
212	Halosulfuron-methyl	100784-20-1	Agricultural products : Halosulfuron-methyl(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain	Oral(capsule)	Chronic toxicity study	1 year	Dog	Dcreased RBC, Hb and Ht, Suppressed body weight gain : Female	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20131114382&fileId=201	2014/1/20	–
213	Heptachlor	76-44-8	Agricultural and livestock products : Heptachlor, 2,3-Epoxy-1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene	Pesticides	Insecticide	Organochlorine	Effects on GABA receptors	Negative	Nervous system(Behavior abnormality, Hyperexcitement, Effect on autonomic nervous system), Liver(Hepatocellular hypertrophy, Nodular lesion)／Increased incidence of total of hepatocellular cartinoma and nodular lesion : Mouse／Decreased number of littermate : Rat	Oral(feed)	Chronic toxicity study	2 years	Dog	Hepatocellular hypertrophy, Increased ALP activity	NOAEL: 0.025 mg/kg bw per day	TDI: 0.00012 mg/kg bw	UF:200 interspecies variation:10 interindividual variation:10 insufficient number of data:2	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130122006&fileId=201	2013/7/29	–
214	Hexaconazole	79983-71-4	Agricultural products : Hexaconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of sterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular fatty degeneration), Adrenal gland(Cortical vacuolization : Rat)／Increased incidence of leydig cell tumor : Male rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular fatty degeneration : Male	NOAEL: 0.47 mg/kg bw per day	ADI: 0.0047 mg/kg bw	SF:100	Oral(gavage)	Subacute toxicity study	Dog	Abnormal gait, Behavior abnormality, Decreased body weight, Suppressed body weight gain	NOAEL: 25 mg/kg bw per day	0.25 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718575&fileId=201	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718575&fileId=201	2015/10/20	–
215	Hexazinone	51235-04-2	Agricultural products : Hexazinone, 3-(4-hydroxycyclohexyl)-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4-(1H,3H)-dione, 3-cyclohexyl-6-(methylamino)-1-methyl-1,3,5-triazine-2,4-(1H,3H)-dione, 3-(4-hydroxycyclohexyl)-6-(methylamino)-1-methyl-1,3,5-triazine-2,4-(1H,3H)-dione, 3-cyclohexyl-1-methyl-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione, 3-(4-hydroxycyclohexyl)-1-methyl-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione	Pesticides	Herbicide	Triazine	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular necrosis)／Increased hepatic tumorigenic lesion : Female mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Hepatocellular pigment deposition : Female	NOAEL: 4.97 mg/kg bw per day	ADI: 0.049 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070306012&fileId=002	2008/12/11	–
216	Hexythiazox	78587-05-0	・Agricultural products : Hexythiazox(Parent compound only) ・Livestock products : Hexythiazox, metabolite which has the same chemical structure as hexythiazox	Pesticides	Insecticide (Acaricide)	–	–	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Adrenal gland(Increased organ weight, (Cortical vacuolation)／Increased incidence of hepatocellular adenoma, Increased incidence of total of hepatocellular adenoma/cartinoma and hepatoblastoma : Female mouse, Increased incidence of total of hepatocellular adenoma/cartinoma and hepatoblastoma : Male mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Cortical vacuolation of adrenal gland	NOAEL: 2.87 mg/kg bw per day	ADI: 0.028 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111118287&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111118287&fileId=201	2015/3/24	–
217	Imazapic	104098-48-8	Agricultural and livestock products : Imazapic(Parent compound only)	Pesticides	Herbicide	Imidazolinone	Inhibition of acetolactate synthase(ALS)	Negative	Blood(Anemia : Dog), Muscle(Degeneration and Necrosis : Dog), Stomach(Ulcer : Rabbit)	Oral(feed)	Chronic toxicity study	1 year	Dog	Abdominal muscle degeneration, necrosis and inflammation	LOAEL: 137 mg/kg bw per day	ADI: 0.27 mg/kg bw	SF:500 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:5	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130826a&fileId=201	2014/1/20	–
218	Imazapyr	81334-34-1	Agricultural and livestock products : Imazapyr(Parent compound only)	Pesticides	Herbicide	Imidazolinone	Inhibition of acetolactate synthase(ALS)	Negative	Salivation, Increased kidney weight : Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	No adverse effect observed at highest level(280 mg/kg bw per day)	NOAEL: 280 mg/kg bw per day	ADI: 2.8 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20191009076&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20191009076&fileId=210	2020/1/28	–
219	Imibenconazole	86598-92-7	Agricultural products : Imibenconazole, 2,4-dichloro-2-(1H-1,2,4-triazole-1-yl) acetanilide, 2,4-dichloroaniline	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy, Pigment deposition in Kupffer cell), Blood(Increased dysmorphic red blood cell)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Pigment deposition of spleen	NOAEL: 0.984 mg/kg bw per day	ADI: 0.0098 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030025&fileId=06_001_001	2007/12/20	–
220	Imicyafos	140163-89-9	Agricultural products : Imicyafos(Parent compound only)	Pesticides	Nematicide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%), Blood(Anemia) ／ Increase of maternal animal that all littermate died : Rat	Oral(gavage)	Chronic toxicity study	1 year	Dog	Increased myelopoiesis	NOAEL: 0.05 mg/kg bw per day	ADI: 0.0005 mg/kg bw	SF:100	Oral(gavage)	ChE inhibitor study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 1 mg/kg bw	0.01 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220824141&fileId=210	2024/1/17	–
221	Imidacloprid	138261-41-3	・Agricultural products : Imidacloprid(Parent compound only) ・Livestock products : Imidacloprid, Metabolites containing 6-chloropyridyl groups	Pesticides	Insecticide	Neonicotinoid	Action as an agonist at the nicotinic acetylcholine receptor, affecting the synapses	Negative	Tremor, Suppressed body weight gain／Tremor, Decreased motor and locomotor activity : Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased mineralization in the colloid of thyroid gland follicles	NOAEL: 5.7 mg/kg bw per day	ADI: 0.057 mg/kg bw	SF:100	(a)(b)(c) Oral(gavage)	(a)(b) Pharmacological study (c)Acute toxicity study	(a)(c)Mouse (b)Rabbit	(a)Reduced alertness and motor activity, Ataxia (b)Suppressed behavior and Suppressed pupillary reflex (c)Reduced motor activity and Transient tremor	NOAEL: 10 mg/kg bw	0.1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20151117469&fileId=201	2016/7/12	–
222	Iminoctadine triacetate (former name : Guazatine triacetate) ※6	57520-17-9	Agricultural products : Iminoctadine triacetate, Iminoctadine	Pesticides	Fungicide	Guanidine	Inhibition of lipid biosynthesis	Negative	Kidney(Tubular epithelium degeneration), Male accessory sex appendages(Oligospermia : Dog, Sperm granuloma : Rat)／Increased incidence of adrenal pheochromocytoma : Rat, Increased incidence of mononuclear cell leukemia : Male rat, Renal epithelial tumor : Mouse	(a)(b)Oral(feed)	(a)Subacute toxicity study (b)Chronic toxicity study	(a)90 days (b)1 year	(a)(b)Dog	(a)Decreased testis weight, Histopathological changes (b)Seminiferous tubular atrophy	NOAEL: 0.2 mg/kg bw per day (as Iminoctadine triacetate)	ADI: 0.002 mg/kg bw (as Iminoctadine triacetate)	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain : Maternal	NOAEL: 8 mg/kg bw per day (as Iminoctadine triacetate)	0.08 mg/kg bw (as Iminoctadine triacetate)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125002&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125002&fileId=210	2019/6/4	Evaluated as Iminoctadine. Please see #221.
223	Iminoctadine tris (albesilate) ※6	169202-06-6	Agricultural products : Iminoctadine tris(albesilate), Iminoctadine	Pesticides	Fungicide	Guanidine	Inhibition of lipid biosynthesis	Negative	Kidney(Tubular epithelium degeneration), Male accessory sex appendages(Aspermatogenesis : Dog, Sperm granuloma : Rat)／Skeletal anomaly : Rabbit	Oral(feed)	Chronic toxicity study	1 year	Dog	Aspermatogenesis	NOAEL: 0.9 mg/kg bw per day [as Iminoctadine tris(albesilate)]	ADI:0.009 mg/kg bw [as Iminoctadine tris(albesilate)]	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight : Maternal	NOAEL: 10 mg/kg bw per day [as Iminoctadine tris(albesilate)]	0.1 mg/kg bw [as Iminoctadine tris(albesilate)]	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125002&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125002&fileId=210	2019/6/4	Evaluated as Iminoctadine. Please see #221.

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
224	Iminoctadine (Iminoctadine tris(albesilate), Iminoctadine triacetate(former name：Guazatine triacetate)) ※6	169202-06-6 (as Iminoctadine tris(albesilate)) 57520-17-9 (as Iminoctadine triacetate)	Agricultural products：Iminoctadine tris(albesilate), Iminoctadine triacetate, Iminoctadine	Pesticides	Fungicide	Guanidine	Inhibition of lipid biosynthesis	Negative	Kidney(Tubular epithelium degeneration), Male accessory sex appendages(Aspermatogenesis and Oligospermia：Dog, Sperm granuloma：Rat)	Oral(feed)	Chronic toxicity study	1 year	Dog	Aspermatogenesis	NOAEL: 0.239 mg/kg bw per day (as Iminoctadine), 0.9 mg/kg bw per day [as Iminoctadine tris(albesilate)]	ADI: 0.0023 mg/kg bw (as Iminoctadine), 0.009 mg/kg bw [as Iminoctadine tris(albesilate)]	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain：Maternal	NOAEL: 5.31 mg/kg bw per day (as Iminoctadine), 8 mg/kg bw per day (as Iminoctadine triacetate)	0.053 mg/kg bw (as Iminoctadine), 0.08 mg/kg bw (as Iminoctadine triacetate)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125002&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125002&fileId=210	2019/6/4	–
225	Indanofan	133220-30-1	Agricultural and fishery products：Indanofan(Parent compound only)	Pesticides	Herbicide	Indane	Inhibition of fatty acid and protein biosynthesis	Negative	Blood clotting (coagulation) disorders(Hemorrhage)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Pathological findings related to hemorrhage(Tar-like content)	NOAEL: 0.356 mg/kg bw per day	ADI: 0.0035 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100105004&fileId=021	2010/9/9	–
226	Indoxacarb	173584 -44-6	Agricultural products：Indoxacarb(Parent compound only)	Pesticides	Insecticide	Oxadiazine	Disturbance of sodium release channels of nervous systems	Negative	Hemolytic anemia	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 1.04 mg/kg bw per day	ADI: 0.0052 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 Study with IndoxacarbMP is used to estimate the ADI:2	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20060718034&fileId=002	2008/4/3	–
227	Inpyrfluxam	1352994-67-2	Agricultural, livestock and fishery products：Inpyrfluxam(Parent compound only)	Pesticides	Fungicide	–	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Diffuse hepatocellular hypertrophy)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Vacuolation of the adrenal zona fasciculata cells	NOAEL: 6 mg/kg bw per day	ADI: 0.06 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hypothermia, Decreased locomotor activity：Female	NOAEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180621045&fileId=213	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221019185&fileId=210	2022/12/14	The English report is the first edition published on June 21, 2018
228	Ipfencarbazone	212201-70-2	Agricultural and fishery products：Ipfencarbazone(Parent compound only)	Pesticides	Herbicide	Triazolinone	Inhibition of lipid biosynthesis	Negative	Blood(Methemoglobinemia, Hemolytic anemia), Liver(Centrilobular hepatocellular fatty degeneration：Rat, Centrilobular hepatocellular acidophilic change：Dog), Urinary bladder(Hyperplasia of mucosal epithelium)／Increased incidence of urinary bladder transitional cell papilloma/carcinoma：Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Centrilobular hepatocellular acidophilic change	NOAEL: 0.0995 mg/kg bw per day	ADI: 0.00099 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011225&fileId=201	2012/10/29	–
229	Ipflufenoquin	1314008-27-9	・Agricultural products：Ipflufenoquin, 6-deoxy-1-O-[2-[2-(7,8-difluoro-2-methylquinolin-3-yloxy)-6-fluorophenyl]propan-2-yl)-β-D-glucopyranose-6-yl=Hydrogen=Malonate, 6-deoxy-1-O-[2-[2-(7,8-difluoro-2-methylquinolin-3-yloxy)-6-fluorophenyl]propan-2-yl)-2-O-(β-D-glucuronopyranosyl)-β-D-glucopyranose-6-yl=Hydrogen=Malonate ・Livestock products：Ipflufenoquin, 2-[2-(7,8-difluoro-2-methylquinolin-3-yloxy)-6-fluorophenyl]-2-Hydroxypropy=β-D-glucopyranosiduronic Acid, 2-[2-(7,8-difluoro-2-methylquinolin-3-yloxy)-6-fluorophenyl]-2-Hydroxypropy=linoleate ・Fishery products：Ipflufenoquin(Parent compound only)	Pesticides	Fungicide	–	–	Negative	Suppressed body weight gain, Incisor (Enamel dysplasia：Rat and Mouse), Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell：Rat), Colon(Hyperplasia of mucosal epithelium：Rat)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Pale color of incisor	NOAEL: 4.84 mg/kg bw per day	ADI: 0.048 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hypothermia, Decreased locomotor activity	NOAEL: 125 mg/kg bw	1.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190619023&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190619023&fileId=210	2020/1/14	–
230	Iprobenfos	26087-47-8	Food products：Iprobenfos(Parent compound)	Pesticides	Fungicide	Organophosphorus	Inhibition of phospholipid biosynthesis	Negative	Inhibition of ChE activity(more than 20%)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte and brain ChE activity(more than 20%)	NOAEL: 3.54 mg/kg bw per day	ADI: 0.035 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071218001&fileId=002	2009/4/23	–
231_1	Iprodione	36734-19-7	Agricultural and livestock products：Iprodione(Parent compound only)	Pesticides	Fungicide	Dicarboximide	Inhibition of spore germination	Negative	Suppressed body weight gain, Erythrocyte(Heinz body：Dog), Liver(Hepatocellular hypertrophy：Mouse), Adrenal gland(Hypertrophy of adrenal zona glomerulosa cells), Testis(Hyperplasia of interstitial cell：Rat and Mouse)／Increased incidence of testicular interstitialcell tumor：Rat, Increased incidence of hepatocellular tumor and cartinoma：Mouse／Decreased litter size and infant：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Microvacuolation of the adrenal zona reticularis cells：Male	LOAEL: 6.1 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable (for general population)	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130312054&fileId=210	2021/11/2	–
231_2	Iprodione	36734-19-7	Agricultural and livestock products：Iprodione(Parent compound only)	Pesticides	Fungicide	Dicarboximide	Inhibition of spore germination	Negative	Suppressed body weight gain, Erythrocyte(Heinz body：Dog), Liver(Hepatocellular hypertrophy：Mouse), Adrenal gland(Hypertrophy of adrenal zona glomerulosa cells), Testis(Hyperplasia of interstitialcell：Rat and Mouse)／Increased incidence of testicular interstitial cell tumor：Rat, Increased incidence of hepatocellular tumor and cartinoma：Mouse／Decreased litter size and infant：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Microvacuolation of the adrenal zona reticularis cells：Male	LOAEL: 6.1 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Oral(gavage)	Developmental toxicity study	Rat	Increased small fetus, Increased the distance between body wall and organs：Fetus	NOAEL: 90 mg/kg bw per day	0.9 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130312054&fileId=210	2021/11/2	–
232	Isofetamid	875915-78-9	Agricultural products：Isofetamid(Parent compound only)	Pesticides	Fungicide	Phenacylamide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased absolute/relative weight, Centrilobular hepatocellular hypertrophy	NOAEL: 5.34 mg/kg bw per day	ADI: 0.053 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight and feed intake：Maternal	NOAEL: 300 mg/kg bw per day	3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150113247&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220421057&fileId=210	2022/6/28	The English report is the first edition published on October 25, 2016
233_1	Isoprothiolane	50512-35-1	・Agricultural and fishery products：Isoprothiolane(Parent compound only) ・Livestock products：Isoprothiolane, monoisopropyl 1,3-dithiolan-2-ylidenemalonate	Pesticides & Veterinary Medicinal Products	Fungicide, Insecticide, Plant Growth Regulator	Dithiolane	Inhibition of hypha growth	Negative	Suppressed body weight gain, Liver(Increased organ weights)／Increased keratoacanthoma：Rat	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased ALP	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a) Developmental toxicity study (b) Pharmacological study	(a)Rat (b)Mouse	(a)Suppressed body weight gain：Maternal (b)Reduced motor activity：Male	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220525072&fileId=210	2022/8/9	–
233_2	Isoprothiolane	50512-35-1	・Agricultural and fishery products：Isoprothiolane(Parent compound only) ・Livestock products：Isoprothiolane, monoisopropyl 1,3-dithiolan-2-ylidenemalonate	Pesticides & Veterinary Medicinal Products	Fungicide, Insecticide, Plant Growth Regulator	Dithiolane	Inhibition of hypha growth	Negative	Suppressed body weight gain, Liver(Increased organ weights)／Increased keratoacanthoma：Rat	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased ALP	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Delayed ossification：Fetus	NOAEL: 12 mg/kg bw per day	0.12 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220525072&fileId=210	2022/8/9	–
234	Isopyrazam	881685-58-1	Agricultural and livestock products：Isopyrazam(Parent compound only)	Pesticides	Fungicide	Pyrazolecarboxamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy, Increased organ weight, Acidophilic altered hepatocellular foci)／NIncreased incidence of hepatocellular adenoma and endometrium adenoma：Female rat／Delayed ossification and Skeletal variation：Rat, Microphthalmia：Rabbit, Reduced number of implantation	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Acidophilic altered hepatocellular foci	NOAEL: 5.5 mg/kg bw per day	ADI: 0.055 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Listless, Exhaustion, Lateral position, Staggering gait, Suppressed body weight gain, Decreased locomotor activity	NOAEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220524080&fileId=210	2023/8/1	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
235	Isotianil	224049-04-1	Agricultural, livestock and fishery products：Isotianil(Parent compound only)	Pesticides	Fungicide	Isothiazole	Induction of disease resistance	Negative	Forestomach(Hyperplasia of mucosal epithelium in the limiting ridge)、Liver(Increased organ weight), Kidney(Chronic nephrosis)	Oral(feed)	Chronic toxicity study	1 year	Rat	Increased T.Chol, Increased liver relative weight	NOAEL: 2.83 mg/kg bw per day	ADI: 0.028 mg/kg bw	SF:100	–	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya2021214228&fileId=210	2023/11/1	–
236	Isouron	55861-78-4	Agricultural products：Isouron(Parent compound only)	Pesticides	Herbicide	Urea	Inhibition of electron transfer system in photosynthesis	Negative	Cytoplasmic vacuolation, Retinopathy , Anemia／Microphthalmia：Rat, Decreased number of implantation	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Female	NOAEL: 1.74 mg/kg bw per day	ADI: 0.017 mg/kg bw	SF:100	(a)Oral(capsule) (b)Nasogastric	(a)(b)Chronic toxicity study	(a)Dog (b)Monkey	(a)Tachycardia, Decreased body weight (b)Vomiting, Decreased body weight	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110613081&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110613081&fileId=201	2016/2/23	–
237	Isoxaflutole	141112-29-0	Agricultural and livestock products：Isoxaflutole(Parent compound only)	Pesticides	Herbicide	Isoxazole	Inhibition of 4-HPPDase	Negative	Eye(Corneal opacity：Rat), Liver(Centrilobular hepatocellular hypertrophy)／Increased incidence of hepatocellular tumor：Rat and Mouse, Increased incidence of thyroid follicular cell adenomas：Male rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Keratitis：Male	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya2014021266&fileId=201	2015/5/12	–
238	Isoxathion	18854-01-8	Agricultural and fishery products：Isoxathion(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%)	(a)Oral(feed) (b)Oral(gavage)	(a)Chronic toxicity study (b)Developmental toxicity study	(a)2 years (b)13 days	(a)Dog (b)Rabbit	(a)Inhibition of erythrocyte ChE activity(more than 20%) (b)Suppressed body weight gain：Maternal	NOAEL: 0.2 mg/kg bw per day	ADI: 0.002 mg/kg bw	SF:100	Oral(unspecified)	ChE inhibitor study	Human	No adverse effect observed at highest level(0.03 mg/kg bw per day)	NOAEL: 0.03 mg/kg bw per day	0.003 mg/kg bw	SF:10	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110613080&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110613080&fileId=201	2016/2/23	–
239	Kasugamycin	19408-46-9	Agricultural products：Kasugamycin(Parent compound only)	Pesticides	Fungicide	Aminoglycoside	Inhibition of protein biosynthesis	Negative	Suppressed body weight gain, Rectum and Anus(Ulcer), Tongue (Disappearance of lingual papilla：Dog), Kidney(Pigment deposition of proximal tubular epithelium cell), Testis(Seminiferous tubular atrophy)／Seminiferous tubular atrophy and Reduced conception rate：Rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain：Parent(Male)	NOAEL: 9.43 mg/kg bw per day	ADI: 0.094 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20200611080&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20200611080&fileId=210	2020/10/27	–
240	Kresoxim-methyl	143390-89-0	Agricultural, livestock and fishery products：Kresoxim-methyl(Parent compound only)	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular hypertrophy, Altered hepatocellular foci)／Increased incidence of liver tumor：Rat	Oral(feed)	Chronic toxicity study and Carcinogenicity study	2 years	Rat	Suppressed body weight gain：Male	NOAEL: 36 mg/kg bw per day	ADI: 0.36 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140325092&fileId=201	2014/6/24	–
241	Lactofen	77501-63-4	Food products：Lactofen(Parent compound only)	Pesticides	Herbicide	Diphenyl ether	Inhibition of protoporphyrinogen oxidase activity	Negative	Liver(Increased organ weight, Increased incidence of altered hepatocellular foci), Kidney(Increased organ weight, Pigment deposition), Testis(Vacuolization), Blood(Anemia)／Increased incidence of hepatic tumor：Rat and Mouse／Reduced reproductive ability：Male rat, Low body weight, Skeletal anomaly：Rat(Fetus)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased urinary cast	NOAEL: 0.79 mg/kg bw per day	ADI: 0.0079 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20061219015&fileId=021	2010/7/29	–
242	Lancotrione sodium	1486617-22-4	Agricultural products：Lancotrione sodium(Parent compound only)	Pesticides	Herbicide	Triketone	Inhibition of electron transfer system in photosynthesis	Negative	Eye(keratitis), Nervous system(Vacuolation of molecular layer of cerebellar cortex：Rat), Skin(Dermatitis), Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell), Gallbladder(Calculus：Mouse)／Corneal squamous cell papilloma/carcinoma：Rat	Oral(gavage)	Developmental toxicity study	6 - 27 days of pregnancy	Rabbit	Extra Rib, Increased skeletal anomaly：Fetus	NOAEL: 0.1 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight and feed intake：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20170927103&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20170927103&fileId=210	2018/4/17	–
243	Lepimectin (Mixture of L.A3 and L.A4)	171249-10-8 (as L.A3), 171249-05-1 (as L.A4)	Agricultural and fishery products：Lepimectin(Parent compound only)	Pesticides	Insecticide	16 membered macrolide	Action on the chloridеion channel	Negative	Liver(Hepatocellular fatty degeneration), Blood(Hemolytic anemia), Incisor elongation：Mouse／Increased skeletal variation：Rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Decreased Eos	NOAEL: 2.02 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	Oral(gavage)	Pharmacological study	Rat	Tip toe gait, Suppression of righting reflex, Hypotonia	NOAEL: 200 mg/kg bw	2 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20170315213&fileId=201	2017/6/13	–
244	Lindane	58-89-9	Agricultural and livestock products：Lindane(Parent compound only)	Pesticides	Insecticide	Organochlorine	Effects on GABA receptors	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Kidney(Accumulation of hyaline droplet, Multiple cortical tubular necrosis：Male rat)／Increased incidence of bronchiolo-alveolar adenoma：Female mouse／Suppressed body weight gain, Retarded development, Decreased viability rate：Rat, Decreased number of live fetus：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy, Increased spleen weight	NOAEL: 0.47 mg/kg bw per day	TDI: 0.0047 mg/kg bw	UF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20100511400&fileId=201	2013/3/4	–
245	Lufenuron	103055-07-8	Agricultural and livestock products：Lufenuron(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Benzoylurea	Inhibition of molting	Negative	Nervous system(Tonic-clonic convulsion), Liver(Increased organ weight), Adrenal gland(Increased organ weight)	Oral(feed)	Chronic toxicity study	1 year	Dog	Hepatocellular hypertrophy	NOAEL: 1.42 mg/kg bw per day	ADI: 0.014 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20112204305&fileId=201	2014/6/17	–
246	Malathion	121-75-5	Agricultural and livestock products：Malathion(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%) ／ Increased incidence of hepatocellular adenomas：Mouse	Oral(feed)	Chronic toxicity study and Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte AChE activity(more than 20%)	NOAEL: 29 mg/kg bw per day	ADI: 0.29 mg/kg bw	SF:100	Oral(capsule)	Single-dose toxicity study	Human	No adverse effect observed at highest level(15 mg/kg bw)	NOAEL: 15 mg/kg bw	1.5 mg/kg bw	SF:10	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110425002&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110425002&fileId=201	2014/5/13	–
247	Mandestrobin	173662-97-0	Agricultural, livestock and fishery products：Mandestrobin(Parent compound only)	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP：Male	NOAEL: 19.2 mg/kg bw per day	ADI: 0.19 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140203024&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20240221023&fileId=211	2024/7/31	The English report is the first edition published on October 7, 2014
248	Mandipropamid	374726-62-2	Agricultural and livestock products：Mandipropamid(Parent compound only)	Pesticides	Fungicide	Mandelicacidamide	Inhibition of hypha growth	Negative	Liver(Hepatocellular acidophilic change)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased ALP	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20201019126&fileId=210	2021/2/16	–
249	MCPA	94-74-6	Agricultural, livestock and fishery products：MCPA(including MCPA-sodium salt, MCPA-dimethylamine salt, MCPA-ethyl and MCPA-ethylhexyl ester)	Pesticides	Herbicide	Phenoxy	Promotion of auxin action	Negative	Suppressed body weight gain, Nervous system(Abnormal gait, Ataxia：Rat and Mouse), Liver(Hepatocellular hypertrophy), Kidney(Renal dysfunction and related renal lesions)／Skeletal variation：C3H/He Mouse(Fetus), Skeletal anomaly and variation：Rat(Fetus)	Oral(feed)	Chronic toxicity study	1 year	Dog	Aggravation of lipofuscin deposit in renal proximal tubular epithelium cell	NOAEL: 0.19 mg/kg bw per day	ADI: 0.0019 mg/kg bw	SF:100	Oral(feed)	Developmental toxicity study	Mouse	Increased 14th rib：Fetus	NOAEL: 32 mg/kg bw per day	0.32 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20201111137&fileId=210	2021/6/22	–

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
250	MCPB (MCPB-ethyl)	10443-70-6	Agricultural products：MCPB-ethyl, 4-(4-chloro-o-tolyloxy)butyric acid, 4-chloro-o-tolyloxyacetic acid	Pesticides	Herbicide	Phenoxy	Promotion of auxin action	Negative	Suppressed body weight gain, Kidney(Increased organ weight)／Increased ventricular septal defect：Rat(Fetus)	Oral(feed)	Two-generation reproductive activity study	—	Rat	Suppressed body weight gain：Female parent	NOAEL: 1.24 mg/kg bw per day	ADI: 0.012 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Crouching position：Maternal	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140325097&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140325097&fileId=210	2018/9/4	—
251	Mefenacet	73250-68-7	Food products：Mefenacet(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid biosynthesis	Negative	Blood(Increased MetHb, Increased number of reticulocyte), Spleen(Swelling, Dark red change, Congestion)	Oral(feed)	Two-generation reproductive activity study	—	Rat	Increased incidence of pigment deposition in spleen：Parent	NOAEL: 0.7 mg/kg bw per day	ADI: 0.007 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030041&fileId=06_001_001	2008/3/13	—
252	Mefenpyr-diethyl	135590-91-9	Agricultural products：Mefenpyr-diethyl(Parent compound only)	Pesticides	Herbicide Safeners	—	Acceleration of drug metabolism	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Kidney(Decreased urine volume and BUN), Hematopoietic system(Increased extramedullary hematopoiesis in spleen)	Oral(feed)	Carcinogenicity study	18 months	Mouse	Centrilobular-Lobule intermediate zone hepatocellular hypertrophy：Male	NOAEL: 2.8 mg/kg bw per day	ADI: 0.028 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070605009&fileId=002	2008/12/18	—
253	Mefentrifluconazole	1417782-03-6	・Agricultural products：Mefentrifluconazole(Parent compound only) ・Livestock products：Mefentrifluconazole, 2-[4-(4-Chlorophenoxy)-2-(trifluoromethyl)phenyl]propane-1,2-diol(including conjugated form)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy, Hepatocellular necrosis)／Slight decreased number of implantation, Decreased number of infant：Rat	Oral(feed)	Carcinogenicity study	18 months	Mouse	Hepatocellular fatty degeneration：Male	NOAEL: 3.5 mg/kg bw per day	ADI: 0.035 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190523011&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220824145&fileId=210	2022/10/26	The English report is the first edition published on January 14, 2020
254	Mepanipyrim	110235-47-7	Agricultural products：Mepanipyrim(Parent compound only)	Pesticides	Fungicide	Anilinopyrimidine	Inhibition of hypha growth	Negative	Liver(Hepatocellular hypertrophy/degeneration), Kidney(Increased organ weight：Rat)／Increased hepatocellular adenoma：Female rat, Increased hepatocellular adenoma/cartinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Fatty degeneration of liver	NOAEL: 7.34 mg/kg bw per day	ADI: 0.073 mg/kg bw	SF:100	Oral(capsule)	Acute neurotoxicity study	Rat	Decreased number of rearings, Tremor, Reduced state of arousal：Male	NOAEL: 400 mg/kg bw	4 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130130017&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119019&fileId=210	2022/3/29	The English report is the first edition published on October 20, 2015
255	Mepiquat chloride	24307-26-4	Agricultural products：Mepiquat chloride(Parent compound only)	Pesticides	Plant Growth Regulator	Hetero	Inhibition of gibberellin biosynthesis	Negative	Suppressed body weight gain, Tremor, Kidney(Vacuolization of distal tubular epithelium：Dog)	Oral(gavage)	Developmental neurotoxicity study	6 days of pregnancy - 10 days postnatal：Maternal, 11 - 21 days postnatal：Offspring	Rat	Death：Offspring	NOAEL: 30 mg/kg bw per day	ADI: 0.3 mg/kg bw	SF:100	Oral(gavage)	Developmental neurotoxicity study	Rat	Death：Offspring	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20131114386&fileId=201	2017/3/7	—
256	Mepronil	55814-41-0	Food products：Mepronil(Parent compound only)	Pesticides	Fungicide	Amide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased absolute/relative weight)	Oral(capsule)	Chronic toxicity study	2 years	Dog	Increased ALP：Female	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325022&fileId=002	2009/12/17	—
257	Mesotrione	104206-82-8	Agricultural products：Mesotrione(Parent compound only)	Pesticides	Herbicide	Triketone	Inhibition of carotenoid biosynthesis	Negative	Eye(Corneal opacity), Liver(Increased organ weight)／Slight increased thyroid follicular cell adenoma：Female rat	Oral(feed)	Three-generation reproductive activity study	—	Rat	Increased kidney weight：Male parent, Decreased feed intake：Female parent, Renal pelvic dilatation：Offspring	NOAEL: 0.3 mg/kg bw per day	ADI: 0.003 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140702189&fileId=201	2015/2/3	—
258	Metaflumizone	139968-49-3	・Agricultural products：Metaflumizone(E-isomer and Z-isomer), p-[m-(trifluoromethyl)phenacyl]benzonitrile ・Livestock and fishery products：Metaflumizone(E-isomer and Z-isomer)	Pesticides	Insecticide	Trifluoromethoxyphenyl	Inhibition of neural transmission	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Centrilobular hepatocellular hypertrophy)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Decreased MCHC, Increased hypochromasia erythrocyte and T.Bil：Male, Vomiting, Ataxia, Suppressed body weight gain, Decreased body weight and feed intake：Female	NOAEL: 12 mg/kg bw per day	ADI: 0.12 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201019127&fileId=210	2021/1/12	—
259	Metalaxyl (Metalaxyl-M)	57837-19-1 (as Metalaxyl), 70630-17-0 (as Metalaxyl-M)	・Agricultural and fishery products：Metalaxyl, Metalaxyl-M(Parent compound only) ・Livestock products：Metalaxyl, Metalaxyl-M, Metabolites containing 2,6-dimethylaniline groups	Pesticides	Fungicide	Acylalanine	Inhibition of DNA and RNA replication	Negative	Liver(Increased organ weight)	Oral(capsule)	Chronic toxicity study	2 years	Dog	Tonic convulsion, Death with salivation	NOAEL: 8 mg/kg bw per day	ADI: 0.08 mg/kg bw	SF:100	(a) Oral(gavage) (b) Oral(unspecified)	(a)Subacute toxicity study (b) Pharmacological study	(a)Rat (b)Mouse	(a)Reduced motor activity (b)Decreased locomotor activity	NOEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170315212&fileId=201	2017/10/17	—
260	Metaldehyde	108-62-3	Agricultural, livestock and fishery products：Metaldehyde(Parent compound only)	Pesticides	Insecticide	Ethanalpolymer	—	Negative	Liver(Hepatocellular hypertrophy), Nervous system(Ataxia：Rat and Dog)／Increased hepatocellular adenoma：Female rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy：Male	NOAEL: 2.2 mg/kg bw per day	ADI: 0.022 mg/kg bw	SF:100	Oral(feed)	Chronic toxicity study	Dog	Ataxia	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220713116&fileId=210	2022/10/12	—
261	Metam (Metam-ammonium) ※3	39680-90-5 (as Metam-ammonium)	Agricultural products：Methyl isothiocyanate	Pesticides	Fumigant	Dithiocarbamate	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Stomach(Hyperkeratosis：Forestomach, Hyperplasia of mucosal epithelium：Glandular stomach) ／Decreased the number of viable fetuses, Increased the number of stillborn infant：Rat	(a)Oral(capsule) (b)Oral(gavage)	(a)Chronic toxicity study (b)Two-generation reproductive activity study	(a)1 year (b)—	(a)Dog (b)Rat	(a)Vomiting, Salivation (b)Increased absolute/relative liver weight	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	Oral(capsule)	Chronic toxicity study	Dog	Vomiting	NOAEL: 3 mg/kg bw per day	0.03 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231121904&fileId=210	2024/1/31	Evaluated as a group of Dazomet, Metam and Methyl isothiocyanate. Please see #100.
262	Metam (Metam-sodium, Metam-potassium) ※3	137-42-8 (as Metam-sodium), 137-41-7 (as Metam-potassium)	Agricultural products：Methyl isothiocyanate	Pesticides	Fumigant	Dithiocarbamate	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Blood(Anemia), Stomach(Hyperplasia of mucosal epithelium：Forestomach), Urinary bladder(Hyperplasia of mucosal epithelium) ／Meningocele：Rat and rabbit fetus	Oral(gavage)	Chronic toxicity study	1 year	Dog	Increased ALP：Male	NOAEL: 0.75 mg/kg bw per day	ADI: 0.0075 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat and Rabbit	Suppressed body weight gain：Maternal	NOAEL: 2.16 mg/kg bw per day	0.021 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231121904&fileId=210	2024/1/31	Evaluated as a group of Dazomet, Metam and Methyl isothiocyanate. Please see #100.
263	Metamifop	256412-89-2	Agricultural, livestock and fishery products：Metamifop(Parent compound only)	Pesticides	Herbicide	Aryloxyphenoxypropionic	Inhibition of acetyl-CoA carboxylase	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Hepatocellular hypertrophy), Kidney(Epithelial hyperplasia of urinary tract, Mineralization of pelvis：Rat), Thyroid(Hypertrophy of follicular epithelial cell)／Increased incidence of granulosa cell tumor：Female rat, Increased incidence of hepatocellular adenoma/cartinoma：Mouse／Decreased number of primordial follicle, Decreased average number of implantation and infant：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Mineralization of pelvis	NOAEL: 0.42 mg/kg bw per day	ADI: 0.0042 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 120 mg/kg bw per day	1.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160323545&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201111143&fileId=210	2021/2/16	The English report is the first edition published on September 6, 2016
264	Metazosulfuron	868680-84-6	Agricultural products：Metazosulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Hepatocellular hypertrophy),／Increased incidence of endometrium adenoma：Female rat,／Decreased body weight, Skeletal variation, Increased incidence of delayed ossification：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	1 year	Rat	Increased foamy alveolar macrophage of lung：Male	NOAEL: 2.75 mg/kg bw per day	ADI: 0.027 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101210343&fileId=201	2012/1/26	—
265_1	Metconazole	125116-23-6	Agricultural products：Metconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Blood(Miniaturization of RBC), Liver(Hepatocellular hypertrophy)／Increased hepatocellular tumor：Mouse／Ventricular septal defect, Variation of rib：Rat, Hydrocephaly, Internal anomary, Skeletal anomaly：Rabbit(Fetus)	Oral(gavage)	Developmental toxicity study	13 days	Rabbit	Hydrocephaly：Fetus	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain, Decreased feed intake and body weight：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw (for general population)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140514145&fileId=201	2014/11/18	—

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
265_2	Metconazole	125116-23-6	Agricultural products：Metconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Blood(Miniaturization of RBC), Liver(Hepatocellular hypertrophy)／Increased hepatocellular tumor：Mouse／Ventricular septal defect, Variation of rib：Rat, Hydrocephaly, Internal anomary, Skeletal anomaly：Rabbit(Fetus)	Oral(gavage)	Developmental toxicity study	13 days	Rabbit	Hydrocephaly：Fetus	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Hydrocephaly：Fetus	NOAEL: 2 mg/kg bw per day	0.02 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140514145&fileId=201	2014/11/18	–
266	Methamidophos	10265-92-6	Agricultural and livestock products：Methamidophos(Parent compound only)	Pesticides	Insecticide, Acaricide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%) ／ Reduced birth rate：Rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Inhibition of brain and erythrocyte ChE activity(more than 20%)	NOAEL: 0.056 mg/kg bw per day	ADI: 0.00056 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)：Male, Inhibition of brain and erythrocyte ChE activity(more than 20%)：Female	NOAEL: 0.3 mg/kg bw	0.003 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220713119&fileId=210	2024/2/14	–
267	Methiocarb	2032-65-7	Agricultural products：Methiocarb, Methiocarb sulfoxide	Pesticides	Insecticide	Carbamate	–	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%)	Oral(feed)	Chronic toxicity study	2 years	Dog	Paralysis of hindlimb, Tremor, Decreased attention, Vomiting	NOAEL: 2.4 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20070206013&fileId=002	2007/2/6	–
268	Methoxyfenozide	161050-58-4	Agricultural, livestock and fishery products：Methoxyfenozide(Parent compound only)	Pesticides	Insecticide	Benzoylhydrazine	Induction of abnormal molting	Negative	Blood(Anemia), Liver(Periportal hepatocellular hypertrophy：Rat), Kidney(Renal pelvic epithelial cell hyperplasia：Rat)	Oral(feed)	Chronic toxicity study	1 year	Dog	Decreased RBC：Male	NOAEL: 9.8 mg/kg bw per day	ADI: 0.098 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220525071&fileId=210	2022/7/13	–
269_1	Methyl iodide	74-88-4	Agricultural products：Methyl iodide(Parent compound only)	Pesticides	Insecticide	–	Inhibition of enzyme activity by nucleophilic reaction	Negative	Thyroid(Hyperplasia of follicular cell)／Increased thyroid follicular cell adenoma：Rat and Mouse Increased embryo death of postimplantation：Rat	Oral(gavage)	Subacute toxicity study	90 days	Rat	Squamous cell metaplasia of submandibular gland	NOAEL: 5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:1000 interspecies variation:10 interindividual variation:10 short test term:10	Oral (gavage)	Combined chronic toxicity / carcinogenicity study	Rat	Increased TSH	NOAEL: 3.53 mg/kg bw	0.035 mg/kg bw（for general population）	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220323042&fileId=210	2024/10/8	–
269_2	Methyl iodide	74-88-4	Agricultural products：Methyl iodide(Parent compound only)	Pesticides	Insecticide	–	Inhibition of enzyme activity by nucleophilic reaction	Negative	Thyroid(Hyperplasia of follicular cell)／Increased thyroid follicular cell adenoma：Rat and Mouse Increased embryo death of postimplantation：Rat	Oral(gavage)	Subacute toxicity study	90 days	Rat	Squamous cell metaplasia of submandibular gland	NOAEL: 5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:1000 interspecies variation:10 interindividual variation:10 short test term:10	Oral (gavage)	Developmental toxicity study	Rabbit	Increased embryo death of postimplantation：Fetus	NOAEL: 0.451 mg/kg bw	0.005 mg/kg bw（for women of childbearing age）	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220323042&fileId=210	2024/10/8	–
270	Methyl isothiocyanate (MITC) ※3	556-61-6	Agricultural products：Methyl isothiocyanate	Pesticides	Nematicide, Fungicide, Insecticide, Herbicide	Dithiocarbamate	Inhibition of SH-enzymes	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular fatty degeneration), Forestomach(Thickening)	(a)(b)Oral(gavage)	(a)Subacute toxicity study (b)Chronic toxicity study	(a)90 days (b)1 year	(a)(b)Dog	(a)Hepatocellular vacuolation and Periportal hepatocellular fatty degenedegeneration (b)Increased absolute/relative liver weight	NOAEL: 0.4 mg/kg bw per day	ADI: 0.004 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b) Pharmacological study	(a)Mouse (b)Rabbit	(a)Increased responsiveness and reflex, Hypersensitivity：Male (b)Hypothermia, Abnormal posture and Hyperpnea：Male	NOAEL: 10 mg/kg bw	0.1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20231121190&fileId=210	2024/1/31	Evaluated as a group of Dazomet, Metam and Methyl isothiocyanate. Please see #100.
271	Metolachlor (S-metolachlor)	51218-45-2 [as Metolachlor(racemate)], 87392-12-9 [as S-metolachlor (S isomer)], 178961-20-1 [as S-metolachlor (R isomer)]	Agricultural products：Metolachlor(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid synthesis	Negative	Liver(Increased absolute/relative weight, Centrilobular hepatocellular hypertrophy)／Increased hepatocellular adenoma：FemaleRat	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 9.7 mg/kg bw per day	ADI: 0.097 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20080617001&fileId=002	2009/7/30	–
272	Metominostrobin	133408-50-1	Agricultural and fishery products：Metominostrobin(Parent compound only)	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Chronic nephrosis), Blood(Anemia)／Increased incidence of hepatocellular adenoma and large granular lymphocytic leukemia：Rat／Increased skeletal variation：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Altered hepatocellular foci：Male	NOAEL: 1.6 mg/kg bw per day	ADI: 0.016 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b) Pharmacological study	(a)Mouse (b)Rabbit	(a)Reduced motor activity (b)Reduced motor activity, Hypotonia, Abnormal gait, Slow wave	NOAEL: 78.1 mg/kg bw	0.78 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20210209019&fileId=210	2021/8/24	–
273	Metrafenone	220899-03-6	Agricultural products：Metrafenone(Parent compound only)	Pesticides	Fungicide	Benzophenone	Inhibition of spore germination	Negative	Liver(Increased organ weight, Centrilobular hepatocellular necrosis), Kidney(Interstitial nephritis, Chronic nephrosis)／Increased hepatocellular adenoma：Rat, Increased incidence of hepatocellular adenoma, Increased incidence of total of hepatocellular adenoma and carcinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 24.9 mg/kg bw per day	ADI: 0.24 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140909228&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140909228&fileId=202	2015/3/24	–
274	Metyltetraprole	1472649-01-6	Agricultural, livestock and fishery products：Metyltetraprole(Parent compound only)	Pesticides	Fungicide	Tetrazolinone	Inhibition of electron transfer system in photosynthesis	Negative	Decreased feed intake：Rabbit	Oral(gavage)	Developmental toxicity study	6 - 28 days of pregnancy	Rabbit	Miscarriage, Decreased feed intake：Maternal	NOAEL: 250 mg/kg bw per day	ADI: 2.5 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190123012&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190123012&fileId=210	2019/7/30	–
275	Mevinphos	7786-34-7	Agricultural products：(E)-mevinphos, (Z)-mevinphos	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Reduced ChE activity, Tremor, Miosis／Reduced copulation rate and fertilization rate, Decreased number of corpus luteum：Rat	Oral(capsule)	Repeated-dose toxicity study	30 days	Human	Reduced erythrocyte ChE activity	NOAEL: 0.016 mg/kg bw per day	ADI: 0.0008 mg/kg bw	SF:20 interspecies variation:1 interindividual variation:10 insufficient number of data:2	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20100812495&fileId=201	2013/6/3	–
276	Milbemectin	51596-10-2 (as M.A3), 51596-11-3 (as M.A4)	Agricultural products：Milbemectin(Parent compound only)	Pesticides	Insecticide	16 membered macrolide	Action on the chloridein channel	Negative	Suppressed body weight gain, Kidney(Chronic nephrosis), Adrenal gland(Increased organ weight), Blood(Microblastic anemia), Incisor (Elongation：Rodent)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain：Female	NOAEL: 3 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140203025&fileId=201	2014/4/22	–
277	Molinate	2212-67-1	Agricultural and fishery products：Molinate(Parent compound only)	Pesticides	Herbicide	Thiocarbamate	Inhibition of fatty acid biosynthesis	Negative	Nervous system(Demyelination, Vacuolization), Muscle(Atrophy), Ovary(Vacuolization of theca folliculi/interstitial cell), Testis(Seminiferous tubular atrophy)／Increased incidence of renal tumor and testicular interstitial cell tumor：Male rat／Reduced sperm motility, Reduced copulation rate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Seminiferous tubular atrophy：Male	NOAEL: 0.21 mg/kg bw per day	ADI: 0.0021 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20021012002&fileId=201	2013/3/4	–

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
278_1	Myclobutanil	88671-89-0	Agricultural and livestock products：Myclobutanil(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Increased absolute/relative weight), Testis(Atrophy：Rat)／Reduced conception rate and gestation rate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Testis atrophy：Male	NOAEL: 2.49 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	Oral(unspecified)	Pharmacological study	Mouse	Suppression of righting reflex, Abnormal gait, Diarrhea, Prone position, Mydriasis：Male	NOEL: 240 mg/kg bw	2.4 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200213029&fileId=210	2020/4/21	–
278_2	Myclobutanil	88671-89-0	Agricultural and livestock products：Myclobutanil(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Increased absolute/relative weight), Testis(Atrophy：Rat)／Reduced conception rate and gestation rate：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Testis atrophy：Male	NOAEL: 2.49 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Increased fetal mortality ：Fetus	NOAEL: 31.3 mg/kg bw per day	0.31 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200213029&fileId=210	2020/4/21	–
279	Nitenpyram	150824-47-8	Agricultural products：Nitenpyram(Parent compound only)	Pesticides	Insecticide	Neonicotinoid	Inhibition of neural transmission	Negative	Suppressed body weight gain／Decreased numbers of implantation and infant：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 53.7 mg/kg bw per day	ADI: 0.53 mg/kg bw	SF:100	Oral(gavage)	Subacute and Chronic toxicity study	Dog	Listless, Dilated pupils	NOAEL: 60 mg/kg bw per day	0.6 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20131222012n6&fileId=201	2016/5/17	–
280	Nitrapyrin	1929-82-4	Agricultural products：Nitrapyrin, 6-chloropicolinic acid	Pesticides	Fungicide	–	Inhibition of nitrification	Negative	Liver(Hepatocellular hypertrophy, Hepatocellular vacuolation, Increased absolute/relative weight)／Increased incidence of renal tumor：Rat, Increased incidence of hepatic tumor, forestomach papilloma and harderian gland tumor：Mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP activity and T.Chol concentration	NOAEL: 3 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030058&fileId=06_001_001	2007/9/6	–
281	Norflurazon	27314-13-2	Agricultural and livestock products：Norflurazon, 4-chloro-5-(amino)-2-(α,α,α-trifluoro-m-tolyl)-3-(2H)-pyridazinone	Pesticides	Herbicide	Pyridazinone	Inhibition of carotenoid biosynthesis	Negative	Liver(Increased organ weight), Kidney(Renal tubular degeneration), Thyroid(Increased organ weight)／Increased incidence of hepatocellular adenoma, Increased incidence of total of hepatocellular adenoma/adenocarcinoma：Male mouse／Skeletal variation：Fetus	Oral(feed)	Subacute toxicity study	6 months	Dog	Increased absolute/relative liver weight	NOAEL: 1.53 mg/kg bw per day	ADI: 0.015 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325014&fileId=021	2010/9/16	–
282	Novaluron	116714-46-6	Agricultural products：Novaluron(Parent compound only)	Pesticides	Insecticide	Benzoylurea	Inhibition of molting	Negative	Blood(Increased number of reticulocyte), Liver(Increased pigment deposition of kupffer cell)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased MetHb	NOAEL: 1.1 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	Report https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20031029031&fileId=06_001_003	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110613074&fileId=201	2012/2/23	The English report is the first edition published on December 25, 2003
283	Orysastrobin	248583-16-1	Food products：Orysastrobin and its EZE-isomer	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Duodenal tumor：Rat and Mouse, Thyroid tumor：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Duodenal mucosal epithelium thickening	NOAEL: 5.2 mg/kg bw per day	ADI: 0.052 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030045&fileId=002	2008/3/27	–
284	Oxadiargyl	39807-15-3	Food products：Oxadiargyl(Parent compound only)	Pesticides	Herbicide	Oxadiazolone	Inhibition of chlorophyll biosynthesis	Negative	Liver(Increased relative weight, Centrilobular hepatocellular hypertrophy)／Increased hepatocellular tumor：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular pigment deposition：Male	NOAEL: 0.8 mg/kg bw per day	ADI: 0.008 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030011&fileId=006_001_001	2007/10/11	–
285	Oxadiazon	19666-30-9	Food products：Oxadiazon(Parent compound only)	Pesticides	Herbicide	Oxadiazolone	Inhibition of chlorophyll biosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy、Increased absolute/relative weight), Blood(Decreased Hb and Ht)／Increased hepatocellular tumor：Rat and Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy：Male	NOAEL: 0.36 mg/kg bw per day	ADI: 0.0036 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080111001&fileId=002	2008/9/25	–
286	Oxathiapiprolin	1003318-67-9	Agricultural products：Oxathiapiprolin(Parent compound only)	Pesticides	Fungicide	Piperidinyl-Thiazole-Isoxazoline	Action on the oxysterol-binding protein	Negative	Suppressed body weight gain and Delayed preputial separation：Rat(Offspring)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Delayed preputial separation：Offspring	NOAEL: 346 mg/kg bw per day	ADI: 3.4 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150310279&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210322031&fileId=211	2021/6/15	The English report is the first edition published on July 7, 2015
287	Oxaziclomefone	153197-14-9	Food products：Oxaziclomefone(Parent compound only)	Pesticides	Herbicide	Oxazinone	–	Negative	Liver(Increased absolute/relative weight), Kidney(Increased absolute/relative weight)／Increased hepatocellular tumor：Rat and Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative liver weight, Diffuse hepatocellular hypertrophy	NOAEL: 0.91 mg/kg bw per day	ADI: 0.0091 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080603005&fileId=002	2008/8/21	–
288	Oxazosulfyl	1616678-32-0	Agricultural, livestock and fishery products：Oxazosulfyl(Parent compound only)	Pesticides	Insecticide	–	–	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell), Nervous system(Tremor)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased GGT、Centrilobular hepatocellular hypertrophy	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hypothermia, Decreased locomotor activity	NOAEL: 25 mg/kg bw	0.25 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190619024&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190619024&fileId=210	2020/3/10	–
289	Oxine Cu	10380-28-6	Agricultural products：Oxine Cu(Parent compound only)	Pesticides	Fungicide	Organocopper	Inhibition of dehydrogenase	Negative	Suppressed body weight gain, Digestive organ(Vomiting, Soft feces, Diarrhea)	(a)Oral(capsule) (b)Oral(gavage)	(a)Chronic toxicity study (b)Subacute toxicity study	(a)1 year (b)90 days	(a)(b)Dog	(a)Vomiting, Soft feces (b)Vomiting	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120821613&fileId=201	2013/4/22	–
290	Oxolinic acid	14698-29-4	Agricultural products：Oxolinic acid(Parent compound only)	Pesticides & Veterinary Medicinal Products	Fungicide (Antibacterial agent)	Quinoline	Inhibition of DNA replication	Negative	Suppressed body weight gain, Testis(Hyperplasia of interstitial cell：Rat), Ovary(Increased organ weight：Rat), Excited agitation, Behavior modification／Increased testis interstitial cell tumor：Rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain	NOAEL: 2.18 mg/kg bw per day	ADI: 0.021 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Increased locomotor activity	NOAEL: 6 mg/kg bw	0.06 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190319055&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190319055&fileId=210	2019/8/27	–
291	Oxpoconazole fumarate	174212-12-5	Agricultural products：Oxpoconazole fumarate, Oxpoconazole, 4,4-dimethyl-1,3-oxazolidin-2-one	Pesticides	Fungicide	Imidazole	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 3 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight and Suppressed body weight gain：Maternal, Increased rate of embryo and fetus death：Fetus	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121128&fileId=210	2019/3/26	–
292	Oxyfluorfen	42874-03-3	Food products：Oxyfluorfen(Parent compound only)	Pesticides	Herbicide	Diphenyl ether	Inhibition of protcporphyrinogen IX oxidase activity	Negative	Blood(Dysmorphic red blood cell, Decreased Hb and Ht), Liver(Hepatocellular pigment deposition), Kidney(Mineralization)／Increased incidence of hepatocellular adenoma and carcinoma：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy：Female	NOAEL: 2.43 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071218005&fileId=031	2010/3/25	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
293	Oxytetracycline (Chlortetracycline, Tetracycline)	79-57-2 (as Oxytetracycline), 57-62-5 (as Chlortetracycline), 60-54-8 (as Tetracycline)	Agricultural products：Oxytetracycline(Parent compound only)	Pesticides, Veterinary Medicinal Products & Additives	Antibacterial agent	Tetracycline	—	Negative	Reduced ossification of forelimb and Increased embryo resorption：Rat	Oral(unspecified)	Effects of OTC on intestinal flora	—	Human	—	NOAEL: 0.03 mg/kg bw per day	Microbiological ADI: 0.03 mg/kg bw (as a group ADI of Oxytetracycline, Chlortetracycline, Tetracyclin)	—	Oral(unspecified)	Effects of OTC on intestinal flora	Human	—	NOAEL: 0.03 mg/kg bw per day	Microbiological ARfD: 0.03 mg/kg bw (as a group ARfD of Oxytetracycline, Chlortetracycline, Tetracyclin)	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160511030&fileId=202	2016/10/25	No toxicological ADI and ARfD. Microbiological ADI and ARfD is established.
294	Paclobutrazol	76738-62-0	Agricultural and fishery products：Paclobutrazol(Parent compound only)	Pesticides	Plant Growth Regulator	Triazole	Inhibition of gibberellin biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular fatty degeneration)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy with fatty degeneration：Male	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	Oral(unspecified)	Acute neurotoxicity study	Rat	Reduced locomotor activity：Female	NOAEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160209500&fileId=201	2016/9/6	—
295	Paraquat	1910-42-5	Agricultural and livestock products：Paraquat(Parent compound only)	Pesticides	Herbicide	Bipyridylium	Cell destruction by active oxygen species	Negative	Suppressed body weight gain, Lung(Increased organ weight, Hyperplasia of alveolar epithelium, Pneumonia), Kidney(Renal tubular dilatation), Eye(Cataract：Rat and Dog)	Oral(feed)	Chronic toxicity study	1 year	Dog	Vesicular breath sounds, Worsening chronic interstitial pneumonia	NOAEL: 0.45 mg/kg bw per day (converted value for paraquat ion)	ADI: 0.0045 mg/kg bw (converted value for paraquat ion)	SF:100	Oral(feed)	Chronic toxicity study	Dog	Worsening chronic interstitial pneumonia, Increased erythrocatalysis in bronchial lymph node	NOAEL: 0.45 mg/kg bw per day (converted value for paraquat ion)	0.0045 mg/kg bw (converted value for paraquat ion)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612175&fileId=211_	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612175&fileId=210	2022/6/28	—
296	Pencycuron	66063-05-6	Agricultural, livestock and fishery products：Pencycuron(Parent compound only)	Pesticides	Fungicide	Urea	Cessation of hypha growth	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy：Rat and Mouse)	Oral(feed)	Two-generation reproductive activity study	—	Rat	Increased liver weight：Parent	NOAEL: 5.3 mg/kg bw per day	ADI: 0.053 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210519113&fileId=210	2021/10/6	—
297	Pendimethalin	40487-42-1	Agricultural, livestock and fishery products：Pendimethalin(Parent compound only)	Pesticides	Herbicide	Dinitroaniline	Inhibition of cell division	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hyperplasia of follicular epithelial cell)／Increased thyroid follicular cell tumor：Rat	Oral(feed)	Chronic toxicity study	2 years	Dog	Chronic inflammation of liver, Increased bile stasis	NOAEL: 12.5 mg/kg bw per day	ADI: 0.12 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Female	NOAEL: 100 mg/kg bw	1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201019129&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201019129&fileId=210	2021/4/13	—
298	Penflufen	494793-67-8	Agricultural and fishery products：Penflufen(Parent compound only)	Pesticides	Fungicide	Alkylamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hypertrophy	LOAEL: 4 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120123349&fileId=201	2013/4/22	—
299	Penoxsulam	219714-96-2	Agricultural products：Penoxsulam(Parent compound only)	Pesticides	Herbicide	Triazolopyrimidine	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Hepatocellular hypertrophy)／Increased incidence of large granular lymphocytic leukemia：Male rat	(a)(b)Oral(feed)	(a)Chronic neurotoxicity study (b)Combined chronic toxicity/carcinogenicity study	(a)1 year (b)2 years	(a)(b)Rat	(a)(b)Soiled perineal region	NOAEL: (a)5 mg/kg bw per day (b)5.1 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100913524&fileId=201	2011/4/22	—
300	Penthiopyrad	183675-82-3	・Agricultural products：Penthiopyrad(Parent compound only) ・Livestock products：Penthiopyrad, 1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxamide	Pesticides	Fungicide	Carboxyamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Centrilobular hepatocellular hypertrophy, Increased organ weight), Blood(Anemia), Thyroid(Hypertrophy of follicular epithelial cell)／Increased incidence of thyroid follicular cell adenoma：Rat, Increased incidence of hepatocellular adenoma：Mouse／Reduced antibody production：Mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP：Female	NOAEL: 8.1 mg/kg bw per day	ADI: 0.081 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Hunchback position, Hypothermia, Decreased locomotor activity	NOAEL: 125 mg/kg bw	1.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121132&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630148&fileId=210	2021/9/7	The English report is the fifth edition published on July 30, 2019
301	Pentoxazone	110956-75-7	Agricultural and fishery products：Pentoxazone(Parent compound only)	Pesticides	Herbicide	Oxazolidine	Inhibition of protcporphyrinogen IX oxidase activity	Negative	Liver(Hepatocellular hypertrophy), Urinary bladder(Mucosal epithelial hyperplasia)／Urinary bladder transitional cell papilloma：Female rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP, Hepatocellular hypertrophy	NOAEL: 23.1 mg/kg bw per day	ADI: 0.23 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231025173&fileId=210	2025/1/22	—
302	Permethrin	52645-53-1	Agricultural and livestock products：Permethrin(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Nervous system(Tremor), Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular fatty vacuolization：Rat), Adrenal gland(Localized cortical degeneration/necrosis：Dog)／Increased incidence of liver and lung benign tumor：Female mouse	Oral(capsule)	Chronic toxicity study	1 year	Dog	Localized cortical degeneration/necrosis of adrenal gland：Male, Suppressed body weight gain：Female	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b) Developmental toxicity study	(a)(b)Rat	(a)Tremor, Decreased locomotor activity, Increased auditory response (b)Tremor, Head twitching：Maternal	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210519115&fileId=210	2021/8/4	—
303	Phenmedipham	13684-63-4	Agricultural products：Phenmedipham(Parent compound only)	Pesticides	Herbicide	Carbamate	Inhibition of Hill reaction	Negative	Suppressed body weight gain, Blood(Hemolytic anemia, Methemoglobinemia), Liver(Pigment deposition), Kidney(Pigment deposition), Spleen(Pigment deposition, Extramedullary hematopoiesis)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased MetHb	NOAEL: 4.6 mg/kg bw per day	ADI: 0.046 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820284&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230322044&fileId=211	2024/7/31	The English report is the first edition published on March 24, 2015
304	Phenthoate	2597-03-7	Agricultural and livestock products：Phenthoate(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of ChE activity(more than 20%)	Oral(feed)	Chronic toxicity study	2 years	Dog	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.29 mg/kg bw per day	ADI: 0.0029 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120718100&fileId=201	2013/1/21	—
305	Phosalone	2310-17-0	Agricultural products：Phosalone(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of cholinesterase activity	Negative	Inhibition of ChE activity(more than 20%)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.2 mg/kg bw per day	ADI: 0.002 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124683&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124683&fileId=201	2014/3/10	—
306	Phosmet	732-11-6	Agricultural and livestock products：Phosmet(Parent compound only)	Pesticides	Fungicide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Suppressed body weight gain, Inhibition of ChE activity(more than 20%), Liver(hepatocellular vacuolation)／Increased hepatocellular adenoma：Mouse／Reduced copulation rate and conception rate：Rat	Oral(feed)	Chronic toxicity study	2 years	Dog	Inhibition of brain ChE activity(more than 20%)	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100301004&fileId=201	2012/5/10	—

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
307	Picarbutrazox	500207-04-5	Agricultural products：Picarbutrazox, tert-butyl=(6-[[(E)-(1- methyl1H-5-tetrazolyl)(phenyl)methylene] aminooxymethyl)-2- pyridyl) carbamate	Pesticides	Fungicide	Tetrazolyloxime	—	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell：Rat)／Increased incidence of thyroid follicular cell adenoma：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative thyroid(Including parathyroid gland) weight：Male, Peripheral hepatocellular vacuolation：Female	NOAEL: 2.34 mg/kg bw per day	ADI: 0.023 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160104488&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221019188&fileId=210	2022/12/14	—
308	Picolinafen	137641-05-5	Agricultural products：Picolinafen(Parent compound only)	Pesticides	Herbicide	Aryloxypicolinamide	Inhibition of carotenoid biosynthesis	Negative	Blood(Anemia), Liver(Pigment deposition in kupffer cell)、Spleen(Increased pigment deposition, Increased extramedullary hematopoiesis), Thyroid(Hypertrophy of follicular epithelial cell, Hyperplasia of follicle epithelium：Dog)	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain：Male	LOAEL: 1.4 mg/kg bw per day	ADI: 0.007 mg/kg bw	SF:200 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:2	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071218007&fileId=06_002	2010/7/1	—
309	Picoxystrobin	117428-22-5	Agricultural and livestock products：Picoxystrobin(Parent compound only)	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy：Mouse), Duodenum(Hyperplasia of mucosa, Dilatation of mucous gland：Mouse)／Increased testicular interstitial cell tumor：MaleRat	Oral(feed)	Chronic toxicity study	1 year	Dog	Emaciation, Decreased body weight, Suppressed body weight gain, Decreased feed intake：Female	NOAEL: 4.6 mg/kg bw per day	ADI: 0.046 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased body weight and feed intake	LOAEL: 200 mg/kg bw	0.2 mg/kg bw	SF:1000 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:10	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150113252&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190220025&fileId=210	2019/5/28	The English report is the first edition published on June 9, 2015
310	Pirimicarb	23103-98-2	Agricultural and livestock products：Pirimicarb(Parent compound only)	Pesticides	Insecticide	Carbamate	Inhibition of acetylcholinesterase activity	Negative	Suppressed body weight gain, Inhibition of ChE activity(more than 20%), Blood(Anemia：Dog)／Increased incidence of lung adenoma：Mouse	(a)Oral(feed) (b)Oral(gavage)	(a)Chronic toxicity study (b)Subacute toxicity study	(a)2 years (b)90 days	Dog	(a)Increased ratio of erythroid to myeloid in bone marrow (b)Dcreased Neutrophil in bone marrow, Increased megaloblast in bone marrow	NOAEL: 1.8 mg/kg bw per day	ADI: 0.018 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100301002&fileId=201	2014/3/24	—
311	Polyoxin (Polyoxin complex)	19396-03-3 (as PolyoxinA), 19396-06-6 (as PolyoxinB), 22976-88-1 (as PolyoxinG), 24695-54-3 (as PolyoxinH), 22976-89-2 (as PolyoxinJ), 22886-46-0 (as PolyoxinK), 22976-90-5 (as PolyoxinL), 34718-88-2 (as PolyoxinM)	Agricultural products：Polyoxin complex(Parent compound only)	Pesticides	Fungicide	Nucleoside	Inhibition of chitin synthesis	Negative	Suppressed body weight gain, Kidney(Increased organ weight)	Oral(gavage)	Developmental toxicity study	7 - 19 days of pregnancy	Rabbit	Death, Suppressed body weight gain：Maternal, Delayed ossification：Fetus	NOAEL: 250 mg/kg bw per day	ADI: 2.5 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200728100&fileId=210	2021/6/8	—
312	Polyoxin (Polyoxin D zinc salt)	146659-78-1	Agricultural products：Polyoxin D zinc salt(Parent compound only)	Pesticides	Fungicide	Nucleoside	Inhibition of chitin synthesis	Negative	Suppressed body weight gain：Rat	Oral(feed)	Two-generation reproductive activity study	—	Rat	No adverse effect observed at highest level(729 mg/kg bw per day)	NOAEL: 729 mg/kg bw per day	ADI: 7.2 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230524083&fileId=210	2023/7/20	—
313	Pretilachlor	51218-49-6	Agricultural and fishery products：Pretilachlor(Parent compound only)	Pesticides	Herbicide	Acid amide	Inhibition of very long chain fatty acid biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Increased T.Chol)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased Glu：Female	NOAEL: 1.84 mg/kg bw per day	ADI: 0.018 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20240207012&fileId=210	2024/12/18	—
314	Primisulfuron-methyl	86209-51-0	Agricultural products：Primisulfuron-methyl(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Incisor (Shortening, Defect, Malocclusion), Bone(Hyperostosis), Liver(Increased absolute/relative weight, Centrilobular hepatocellular hypertrophy), Kidney(Nephrosis, Increased absolute/relative weight), Testis(Aspermatogenesis：Rat and Mouse)、Thyroid(Decreased follicular colloid, Hyperplasia of parafollicular cell：Dog)／Increased incidence of hepatocellular tumor：Mouse	Oral(gavage)	Developmental toxicity study	7 - 19 days of pregnancy	Rabbit	Increased abortion：Maternal	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071218008&fileId=002	2009/3/26	—
315	Probenazole	27605-76-1	Agricultural and fishery products：Probenazole(Parent compound only)	Pesticides	Fungicide	Benzoisothiazole	Induction of disease resistance	Negative	Liver(Increased organ weight, Hepatocellular vacuolation), Blood(Anemia)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Hepatic granuloma	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	Oral(gavage)	Subacute toxicity study	Rat and Mouse	Decreased body weight and feed intake	NOAEL: 200 mg/kg bw per day	2 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100812493&fileId=210	2018/3/27	—
316	Prochloraz	67747-09-5	Agricultural and livestock products：Prochloraz, its metabolites containing 2,4,6-trichlorophenoxy moiety as the relevant substance	Pesticides	Fungicide	Imidazole	Inhibition of sterol biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Prostate(Decreased organ weight：Dog)／Increased incidence of hepatic tumor：Mouse／Dystocia、Extended times of childbirth, Extended gestation period, All death of littermate、Decreased numbers of infant and offspring	Oral(feed)	Chronic toxicity study	2 years	Dog	Inflammatory cellula infiltration	NOAEL: 4.07 mg/kg bw per day	ADI: 0.04 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Decreased feed intake：Maternal	NOAEL: 160 mg/kg bw per day	1.6 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612177&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612177&fileId=210	2020/9/1	—
317_1	Procymidone	32809-16-8	Agricultural and livestock products：Procymidone(Parent compound only)	Pesticides	Fungicide	Dicarboximide	Inhibition of hypha growth	Negative	Liver(Centrilobular hepatocellular hypertrophy), Testis(Hyperplasia of interstitial cell)／Increased incidence of testicular interstitial cell tumor：Rat, Trend in increased incidence of hepatoblastoma：MaleMouse／Shorter anogenital distance, Hypospadias：MaleRat	Oral(gavage)	Developmental toxicity study	6 - 19 days of pregnancy	Rat	Shorter anogenital distance：Fetus	NOAEL: 3.5 mg/kg bw per day	ADI: 0.035 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b) Pharmacological study	(a)Rat (b)Mouse	(a)Decreased locomotor activity, Hypotonia, Staggering gait (b)Abnormal gait, Reduced motor activity, Sedation, Decreased respiration, Abnormal posture	NOAEL: 30 mg/kg bw	0.3 mg/kg bw (for general population)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230524081&fileId=210	2023/8/1	—
317_2	Procymidone	32809-16-8	Agricultural and livestock products：Procymidone(Parent compound only)	Pesticides	Fungicide	Dicarboximide	Inhibition of hypha growth	Negative	Liver(Centrilobular hepatocellular hypertrophy), Testis(Hyperplasia of interstitial cell)／Increased incidence of testicular interstitial cell tumor：Rat, Trend in increased incidence of hepatoblastoma：MaleMouse／Shorter anogenital distance, Hypospadias：MaleRat	Oral(gavage)	Developmental toxicity study	6 - 19 days of pregnancy	Rat	Shorter anogenital distance：Fetus	NOAEL: 3.5 mg/kg bw per day	ADI: 0.035 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Shorter anogenital distance：Fetus	NOAEL: 3.5 mg/kg bw per day	0.035 mg/kg bw (for women of childbearing age)	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230524081&fileId=210	2023/8/1	—
318	Profenofos	41198-08-7	Agricultural and livestock products：Profenofos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	—	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%), Anemia, Liver(Increased hepatocyte with binuclear：Dog)	Oral(gavage)	Subacute and Chronic toxicity study	90 days, 180 days, 1year	Dog	Inhibition of erythrocyte ChE activity(more than 20%), Increased hepatocyte with binuclear	NOAEL: 0.05 mg/kg bw per day	ADI: 0.0005 mg/kg bw	SF:100	Oral(gavage)	ChE inhibitor study	Juvenile rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 5 mg/kg bw	0.05 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130312064&fileId=201	2016/3/8	—

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
319	Prohexadione-calcium	127277-53-6	Agricultural products：Prohexadione-calcium, Prohexadione	Pesticides	Plant Growth Regulator	Cyclohexanedione	Inhibition of gibberellin biosynthesis	Negative	Stomach(Squamous epithelial hyperplasia of forestomach、Submucosal heterotopic tissue of glandular stomach), Kidney(Cortical tubular dilatation：Dog)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Dilatation of tubule in renal cortex, basophilia changes, Fibrosis	NOAEL: 20 mg/kg bw per day	ADI: 0.2 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120326435&fileId=201	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20120326435&fileId=201	2015/3/24	–
320	Prohydrojasmon	158474-72-7	Agricultural products：Prohydrojasmon(Parent compound only)	Pesticides	Plant Growth Regulator	Jasmonic acid derivative	–	Negative	Suppressed body weight gain, Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy), Kidney(Increaced renal tubular epithelium lipofuscin deposition)／Decreased number of neonate	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Renal tubular epithelium lipofuscin deposition	NOAEL: 14.4 mg/kg bw per day	ADI: 0.14 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight and feed intake：Maternal	NOAEL: 120 mg/kg bw per day	1.2 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20191218116&fileId=210	2020/2/25	–
321	Prometryn	7287-19-6	Agricultural products：Prometryn(Parent compound only)	Pesticides	Herbicide	s-triazine	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Blood(Anemia), Kidney(Increased organ weight), Liver(Increased organ weight)	Oral(feed)	Chronic toxicity study	2 years	Dog	Atrophy of bone marrow	NOAEL: 3 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Reduced amount of gait motion	NOAEL: 150 mg/kg bw	1.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130130022&fileId=201	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130130022&fileId=201	2015/9/8	–
322	Propachlor	1918-16-7	Agricultural and livestock products：Propachlor, compounds containing the N-isopropylaniline moiety	Pesticides	Herbicide	Acid amide	–	Negative	Liver(Centrilobular hepatocellular hypertrophy, Mononuclear cell infiltration)／Glandular stomach adenocarcinoma：Male rat, Increased hepatocellular tumor：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 5.4 mg/kg bw per day	ADI: 0.054 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080909002&fileId=201	2013/3/4	–
323	Propamocarb (Propamocarb hydrochloride)	25606-41-1 (as Propamocarb hydrochloride)	Agricultural products：Propamocarb hydrochloride(Parent compound only)	Pesticides	Fungicide	Carbamate	Leakage of cellular contents	Negative	Suppressed body weight gain, Reduced feed intake, Epithelial vacuolization：Multiple organs	Oral(feed)	Carcinogenicity study	18 months	Mouse	Suppressed body weight gain：Female	NOAEL: 12 mg/kg bw per day	ADI: 0.12 mg/kg bw	SF:100	Oral (gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20240207013&fileId=210	2025/1/22	–
324	Propanil	709-98-8	Agricultural, livestock and fishery products：Propanil(Parent compound only)	Pesticides	Herbicide	Amide	Inhibition of photosynthesis	Negative	Suppressed body weight gain, Blood(Methemoglobinemia, Hemolytic anemia), Liver(Increased organ weight), Kidney(Pigment deposition of proximal tubular epithelium cell)／Increased incidence of testicular interstitial cell tumor：Male rat, Trend in increased hepatocellular adenoma：Female rat, Increased incidence of splenic malignant lymphoma：Female mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Decreased RBC and Hb	LOAEL: 5 mg/kg bw per day	ADI: 0.016 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Oral(feed)	Effect study on MetHb	Rat	No adverse effect observed at highest level(57 mg/kg bw per day)	NOAEL: 57 mg/kg bw per day	0.57 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180517034&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180517034&fileId=210	2018/12/4	–
325	Propargite	2312-35-8	Agricultural, livestock and fishery products：Propargite(Parent compound only)	Pesticides	Insecticide (Acaricide)	Sulfite ester	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Blood(Anemia)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Occurrence of jejunal undifferentiated sarcoma：Female	LOAEL: 2.95 mg/kg bw per day	ADI: 0.0098 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Oral(gavage)	Pharmacological study	Mouse	Piloerection, Prone position, Loss of vigorous prostration, Shortened latency to fall	NOAEL: 100 mg/kg bw	1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201214153&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201214153&fileId=210	2021/6/8	–
326	Propham	122-42-9 (as 1-methylethyl phenylcarbamate)	–	Pesticides	Herbicide, Plant Growth Regulator	Carbamate	Inhibition of cell division	Negative	Decreased RBC and Ht	–	–	–	–	–	–	Not settting	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070605014&fileId=002	2009/1/8	FSCJ determined that the test results were insufficient and did not establish an ADI.
327	Propiconazole	60207-90-1	Agricultural and livestock products：Propiconazole(Parent compound only)	Pesticides & Additives	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Hepatocellular hypertrophy/vacuolization/necrosis：Rat and Mouse), Duodenum(Mucosal congestion：Dog)／Increased incidence of hepatocellular adenoma/cartinoma：Male mouse／Cleft Palate：Rat and Rabbit(Fetus)	Oral(feed)	Chronic toxicity study	1 year	Dog	Mucosal congestion of duodenum	NOAEL: 1.9 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b) Developmental toxicity study	(a)(b)Rat	(a)Piloerection：Male, Diarrhea and Tip toe gait：Female (b)Suppressed body weight gain, Decreased feed intake：Maternal, Cleft Palate and Unossification of sternum：Fetus	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110613077&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20161214157&fileId=201	2017/7/4	The English report is the first edition published on April 8, 2014
328	Propoxycarbazone-sodium	181274-15-7 (as Propoxycarbazone-sodium)	Agricultural products：Propoxycarbazone-sodium, methyl 2-[[[[4,5-dihydro-3-(2-hydroxypropoxy)-4-methyl -5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino] sulfonyl]benzoate	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain, Reduced feed intake, Renal histopathological change	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Renal histopathological change	NOAEL: 43 mg/kg bw per day	ADI: 0.43 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070112007&fileId=002	2008/9/4	–
329	Propyrisulfuron	570415-88-2	Food products：Propyrisulfuron(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Centrilobular hepatocellular hypertrophy), Blood(Anemia：Dog)	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain：Female	NOAEL: 1.11 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20090609004&fileId=002	2010/1/28	–
330	Propyzamide	23950-58-5	Agricultural products：Propyzamide(Parent compound only)	Pesticides	Herbicide	Amide	Inhibition of cell division	Negative	Suppressed body weight gain, Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy), Thyroid(Increased organ weight, Hypertrophy of follicular epithelial cell)／Increased incidence of thyroid follicular cell adenoma, testicular interstitial cell tumor, Trend in increased incidence of total of hepatocellular adenoma and cartinoma：Rat, Increased incidence of hepatocellular adenoma/cartinoma：Mouse	Oral(feed)	Carcinogenicity study	2 years	Mouse	Increased incidence of hepatocellular adenoma/cartinoma：Male	NOAEL: 1.95 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110325736&fileId=201	2014/1/20	–
331	Prosulfocarb	52888-80-9	Agricultura and fishery products：Prosulfocarb(Parent compound only)	Pesticides	Herbicide	Thiocarbamate	Inhibition of very long chain fatty acid biosynthesis	Negative	Liver(Hepatocellular hypertrophy, hepatocellular vacuolation), Blood(Anemia)／Delayed ossification：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased feed intake	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	Oral (gavage)	Developmental toxicity study	Rat	Decreased body weight and feed intake：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20231025172&fileId=210	2024/10/23	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs							Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
332_1	Prothioconazole	178928-70-6	Agricultural and livestock products：Prothioconazole, 2-(1-chlorocyclopropyl)-1-(2-chlorophenyl)-3-(1H-1,2,4-triazole-1-yl)-2-propanol	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Kidney(Nephritis)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular vacuolation, Fatty liver	NOAEL: 1.1 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b)Acute toxicity study	(a)Rat (b)Mouse	(a)Listless, Piloerection, Dyspnea, Hyporeflexia (b)Motor and respiratory dysfunction, Piloerection, Staggering gait	NOAEL: 100 mg/kg bw	1 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221214221&fileId=210	2023/3/15	–
332_2	Prothioconazole	178928-70-6	Agricultural and livestock products：Prothioconazole, 2-(1-chlorocyclopropyl)-1-(2-chlorophenyl)-3-(1H-1,2,4-triazole-1-yl)-2-propanol	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Kidney(Nephritis)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular vacuolation, Fatty liver	NOAEL: 1.1 mg/kg bw per day	ADI: 0.011 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Skeletal anomaly：Fetus	NOAEL: 2 mg/kg bw per day	0.02 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221214221&fileId=210	2023/3/15	–
333	Prothiofos	34643-46-4	Agricultural and livestock products：Prothiofos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%), Tremor, Suppressed body weight gain ／Increased the incidences of open eyelid, bent ribs and femoral dysplasia：Rabbit	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 0.27 mg/kg bw per day	ADI: 0.0027 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 5 mg/kg bw	0.05 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612178&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220713115&fileId=210	2023/7/12	The English report is the first edition published on October 23, 2018
334	Pydiflumetofen	1228284-64-7	Agricultural and livestock products：Pydiflumetofen(Parent compound only)	Pesticides	Fungicide	N-methoxypyrazolecarboxamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Thyroid(Increased organ weight)／Increased incidence of hepatocellular adenoma/carcinoma：Male mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased feed intake	NOAEL: 9.9 mg/kg bw per day	ADI: 0.099 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain：Maternal	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190417076&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221019189&fileId=210	2023/1/19	The English report is the first edition published on November 12, 2019
335	Pyflubumide	926914-55-8	Agricultural products：Pyflubumide(Parent compound only)	Pesticides	Insecticide(Acaricide)	–	Inhibition of electron transfer system in photosynthesis	Negative	Thyroid(Hyperplasia of follicular epithelial cell), Liver(Hepatocellular hypertrophy), Lung(Alveolar ectasia, Hemorrhage：Rat(Offspring)), Heart(Myocardial fibrosis)／Increased incidence of hepatocellular adenoma：Male mouse／Extended gestation period, Increased the number of stillborn infant：Rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Increased absolute/relative heart weight	NOAEL: 0.735 mg/kg bw per day	ADI: 0.0073 mg/kg bw	SF:100	Oral(feed)	Subacute and Chronic toxicity study	Dog	Tachycardia, Increased heart rate, Lower blood pressure	NOAEL: 9.06 mg/kg bw per day	0.09 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180808077&fileId=210	2018/10/2	–
336	Pymetrozine	123312-89-0	Agricultural products：Pymetrozine(Parent compound only)	Pesticides	Insecticide	Pyridineazomethine	Suppression of eating behavior	Negative	Liver(Increased absolute/relative weight, Hepatocellular hypertrophy), Thyroid(Hyperplasia of follicle epithelium), Blood(Decreased RBC, Hb and Ht)／Increased incidence of hepatic tumor：Female rat and Mouse	Oral(feed)	Two-generation reproductive activity study	–	Rat	Hepatocellular hypertrophy：Male parent, Increased absolute/relative adrenal gland weight ：Female parent	NOAEL: 1.3 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Early Resorption, Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20191218113&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20191218113&fileId=210	2020/6/16	–
337	Pyraclonil	158353-15-2	Agricultural products：Pyraclonil, 1-(3-chloro-4-hydroxy-4,5,6,7-tetrahydropyrazolo[1,5-α]pyridin-2-yl)-5-(methylamino) pyrazole-4-carbonitrile, 1-(3-chloro-4,5,6,7-tetrahydropyrazolo[1,5-α]pyridin-2-yl)-5-(methylamino)pyrazole-4-carbonitrile	Pesticides	Herbicide	Pyrazolopyrazole	Inhibition of protcporphyrinogen IX oxidase activity	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased feed intake	NOAEL: 0.44 mg/kg bw per day	ADI: 0.0044 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180618447&fileId=04_401	2011/6/2	–
338	Pyraclostrobin	175013-18-0	Agricultural products：Pyraclostrobin(Parent compound only)	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Blood(Anemia), Duodenitis(Hyperplasia of mucosal epithelium)／Increased internal and skeletal variation：Rat(Fetus)	Oral(feed)	Chronic toxicity study／Carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 3.4 mg/kg bw per day	ADI: 0.034 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Early Resorption, Resorption of all embryo：Maternal, Increased postimplantation loss：Fetus	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160323541&fileId=201	2016/9/27	–
339	Pyraflufen-ethyl	129630-19-9	Agricultural products：Pyraflufen-ethyl(Parent compound only)	Pesticides	Herbicide	Pyrazole	Inhibition of chlorophyll biosynthesis	Negative	Liver(Hepatocellular hypertrophy, Pigment deposition of kupffer cell), Kidney(Hyperplasia of transitional epithelium, Renal papillary necrosis/dissection)／Slight increased hepatocellular adenoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased urine volume：Male	NOAEL: 17.2 mg/kg bw per day	ADI: 0.17 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210209016&fileId=211	2021/6/29	–
340	Pyrasulfotole	365400-11-9	Agricultural products：Pyrasulfotole, (5-hydroxy-3-methyl-1H-pyrazol-4-yl)[2-(methylsulfonyl)-4-(trifluoromethyl) phenyl]methanone	Pesticides	Herbicide	–	Inhibition of 4-HPPDase	Negative	Cornea(Opacity, Inflammation, Hyperplasia), Urinary tract(Epithelial hyperplasia, Calculus)／Corneal squamous papilloma/carcinoma：Rat, Urinary bladder transitional cell papilloma/carcinoma and urethra transitional epithelium carcinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070828002&fileId=002	2008/11/20	–
341	Pyraziflumid	942515-63-1	Agricultural and livestock products：Pyraziflumid(Parent compound only)	Pesticides	Fungicide	Pyrazinecarboxamide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular single cell necrosis), Thyroid(Hypertrophy of follicular epithelial cell)／Increased incidence of thyroid follicular cell adenoma/carcinoma：Male rat, Increased incidence of hepatocellular adenoma：Female rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy and fatty degeneration：Male	NOAEL: 2.15 mg/kg bw per day	ADI: 0.021 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity	LOAEL: 500 mg/kg bw	1.6 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20161018124&fileId=203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208248&fileId=210	2022/5/10	The English report is the first edition published on March 28, 2017
342	Pyrazosulfuron-ethyl	93697-74-6	Agricultural products：Pyrazosulfuron-ethyl(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Centrilobular hepatocellular hypertrophy, Vacuolar degeneration), Blood(Anemia), Decreased Chol	Oral(capsule)	Chronic toxicity study	1 year	Dog	Dcreased Chol：Female	NOAEL: 1 mg/kg bw per day	ADI: 0.01 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100323352&fileId=201	2014/5/20	–
343	Pyribencarb	799247-52-2	・Agricultural products：Pyribencarb, methyl(2-chloro-5-[(Z)-1-(6-methyl-2-pyridinylmethoxyimino)ethyl]benzyl)carbamate ・Livestock and fishery products：Pyribencarb(Parent compound only)	Pesticides	Fungicide	Benzylcarbamate	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular hypertrophy)、Duodenum(Dilatation, Mucosal thickening)	Oral(feed)	Chronic toxicity study	1 year	Rat	Diffuse hepatocellular fatty degeneration：Male	NOAEL: 3.97 mg/kg bw per day	ADI: 0.039 mg/kg bw	SF:100	Oral(gavage)	Pharmacological study	Mouse	Reduced of righting reflex, Abnormal gait	NOAEL: 113 mg/kg bw	1.1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20221019190&fileId=210	2023/1/19	–
344	Pyributicarb	88678-67-5	Food products：Pyributicarb(Parent compound only)	Pesticides	Herbicide	Thiocarbamate	–	Negative	Blood(Anemia)／Increased interstitial cell tumor：Rat, Increased hepatocellular adenoma/carcinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased water intake, Increased urinary specific gravity：Female	NOAEL: 0.88 mg/kg bw per day	ADI: 0.0088 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070806001&fileId=002	2008/9/11	–
345	Pyridaben	96489-71-3	Agricultural and livestock products：Pyridaben(Parent compound only)	Pesticides	Insecticide	Pyridazinone	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain	Oral(capsule)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100216004&fileId=201	2011/6/30	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
346	Pyridachlometyl	1358061-55-8	Agricultural and livestock products：Pyridachlometyl(Parent compound only)	Pesticides	Fungicide	Pyridazine	Inhibition of hypha growth	Negative	Suppressed body weight gain, Thyroid(Increased organ weight, Hypertrophy of follicular epithelial cell：Rat and Mouse), Liver(Increased organ weight, Hepatocellular hypertrophy)／Increased incidence of thyroid follicular cell adenoma/carcinoma, hepatocellular adenoma/cartinoma and endometrial stromal polyp：Rat, Increased incidence of hepatocellular adenoma/cartinoma：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased GGT, Panlobular hepatocellular hypertrophy：Male	NOAEL: 8 mg/kg bw per day	ADI: 0.08 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220323038&fileId=210	2022/8/31	–
347	Pyridalyl	179101-81-6	Agricultural, livestock and fishery products：Pyridalyl(Parent compound only)	Pesticides	Insecticide	Phenoxy-pyridyloxy derivative	Action as a cytotoxin	Negative	Liver(Hepatocellular hypertrophy, Single cell necrosis), Lung(Accumulation of foam cell：Rat), Adrenal gland(Adrenocortical vacuolization)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain：Male parent	NOAEL: 2.8 mg/kg bw per day	ADI: 0.028 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	Report https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20031029032&fileId=06_001_003	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220323039&fileId=210	2022/5/18	The English report is the first edition published on January 15, 2004
348_1	Pyrifluquinazon	337458-27-2	Agricultural products：Pyrifluquinazon(Parent compound only)	Pesticides	Insecticide	Quinazoline	Suppression of eating behavior	Negative	Testis(Hyperplasia of interstitial cell), Liver(Hepatocellular hypertrophy), Blood(Anemia)／Increased incidence of testicular interstitial cell tumor：Rat and Mouse／Hypospadias, Shorter anogenital distance：Rat(Offspring and Fetus)	Oral(capsule)	Chronic toxicity study	1 year and 6 months recovery period	Dog	Mononuclear cell infiltration in olfactory region of nasal cavity	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Imminent murder, Abnormal body position, Ataxia, Abnormal gait, Abnormal respiration	NOAEL: 100 mg/kg bw	1 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119015&fileId=211	2022/3/9	–
348_2	Pyrifluquinazon	337458-27-2	Agricultural products：Pyrifluquinazon(Parent compound only)	Pesticides	Insecticide	Quinazoline	Suppression of eating behavior	Negative	Testis(Hyperplasia of interstitial cell), Liver(Hepatocellular hypertrophy), Blood(Anemia)／Increased incidence of testicular interstitial cell tumor：Rat and Mouse／Hypospadias, Shorter anogenital distance：Rat(Offspring and Fetus)	Oral(capsule)	Chronic toxicity study	1 year and 6 months recovery period	Dog	Mononuclear cell infiltration in olfactory region of nasal cavity	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Shorter anogenital distance：Fetus	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119015&fileId=211	2022/3/9	–
349	Pyriftalid	135186-78-6	Agricultural products：Pyriftalid(Parent compound only)	Pesticides	Herbicide	Isobenzofura	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Increased absolute/relative weight, Centrilobular hepatocellular hypertrophy), Kidney(Increased absolute/relative weight, Tubular basophilia changes)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Demyelination of sciatic nerve：Female	NOAEL: 0.56 mg/kg bw per day	ADI: 0.0056 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20081030034&fileId=06_001_001	2008/1/17	–
350	Pyrimethanil	131341-86-1	Agricultural and livestock products：Pyrimethanil(Parent compound only)	Pesticides & Additives	Fungicide	Anilinopyrimidine	Inhibition of methionine biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular epithelial cell), Urinary tract(Urinary bladder dilatation：Mouse)／Increased incidence of thyroid follicular cell adenomas：Female rat／Increased incidence of dwarf, 13 thoracic vertebra and 13th rib：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	ThyroidHypertrophy of follicular epithelial cell	NOAEL: 17 mg/kg bw per day	ADI: 0.17 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20051039604no5&fileId=201	2012/6/7	–
351	Pyrimidifen	105779-78-0	Agricultural products：Pyrimidifen(Parent compound only)	Pesticides	Insecticide (Acaricide)	Phenoxyethylamine	Disorders of calcium metabolism in muscle tissue	Negative	Suppressed body weight gain, GI tract (Vomiting, Watery stool：Dog)、, Liver(Increased organ weight), Kidney(Increased organ weight)／Increased incidence of adrenal pheochromocytoma：Male rat	Oral(capsule)	Chronic and Subacute toxicity study	1 year, 90 days	Dog	Vomiting, Watery stool	NOAEL: 0.15 mg/kg bw per day	ADI: 0.0015 mg/kg bw	SF:100	Oral(gavage)	Developmental neurotoxicity study	Rabbit	Decreased body weight, Suppressed body weight gain：Maternal	NOAEL: 4 mg/kg bw per day	0.04 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190417077&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190417077&fileId=210	2019/10/8	–
352	Pyriminobac-methyl	136191-64-5	Food products：Pyriminobac-methyl(Parent compound only)	Pesticides	Herbicide	Pyrimidylcarboxy	Inhibition of acetolactate synthase(ALS)	Negative	Liver(Hepatocellular hypertrophy), Kidney(Chronic nephrosis), Blood(Anemia：Rat)／Increased incidence of large granular lymphocytic leukemia：Rat, Increased incidence of hepatocellular adenoma：Male rat, Increased incidence of uterina adenocarcinoma：Female rat, Increased incidence of hepatocellular adenoma：Female mouse	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain：Female parent	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071112001&fileId=021	2010/4/1	–
353	Pyrimisulfan	221205-90-9	Agricultural products：Pyrimisulfan(Parent compound only)	Pesticides	Herbicide	Sulfonanilide	Inhibition of branched-chain amino acid biosynthesis	Negative	Central nervous system(Salivation, Tremor, Abnormal gait, Increased respiration, Prone position, Lateral position, Lethargy ：Dog), Blood(Decreased Ht, Hb and RBC), Liver(Increased absolute/relative weight, Hepatocellular hypertrophy)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Centrilobular hepatocellular hypertrophy：Parent	NOAEL: 35.2 mg/kg bw per day	ADI: 0.35 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071030004&fileId=002	2009/8/27	–
354	Pyriofenone	688046-61-9	Agricultural products：Pyriofenone(Parent compound only)	Pesticides	Fungicide	Benzoylpyridine	Induction of abnormal hypha	Negative	Liver(Hepatocellular hypertrophy, Hepatocellular necrosis), Kidney(Increased chronic nephrosis)／Increased incidence of hepatocellular tumor：Male mouse	Oral(feed)	Carcinogenicity study	2 years	Rat	Chronic nephrosis：Female	NOAEL: 9.13 mg/kg bw per day	ADI: 0.091 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201214151&fileId=210	2021/3/16	–
355	Pyriproxyfen	95737-68-1	Agricultural products：Pyriproxyfen(Parent compound only)	Pesticides	Insecticide	4-phenoxyphenoxy	Inhibition of metamorphosis	Negative	Blood(Anemia), Liver(Hepatocellular hypertrophy, Fibrosis ：Dog), Kidney(Chronic progressive nephrosis：Mouse)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased T.Chol	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study and Repeated-dose toxicity stud(During perinatal and lactation period)	Rat	Suppressed body weight gain, Decreased feed intake, Soft feces, Diarrhea：Maternal	NOAEL: 300 mg/kg bw per day	3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220525068&fileId=210	2022/7/13	–
356	Pyroquilon	57369-32-1	・Agricultural and fishery products：Pyroquilon(Parent compound only)	Pesticides	Fungicide	Quinoline	Inhibition of melanin biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weights)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Increased absolute/relative liver weight：Parent	NOAEL: 1.9 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	Oral(gavage)	Pharmacological study	Mouse	Reduced motor activity：Male	NOAEL: 20 mg/kg bw	0.2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071127001&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20071127001&fileId=201	2015/6/9	–
357	Pyroxasulfone	447399-55-5	Agricultural and livestock products：Pyroxasulfone(Parent compound only)	Pesticides	Herbicide	Isoxazoline	Inhibition of very long chain fatty acid synthesis	Negative	Nervous system(Degeneration of axon, Degeneration of myelin sheath), Heart(Myocardial degeneration, Myocardial necrosis：Rat and Mouse), Muscle(Inflammation, Degeneration, Necrosis：Rat and Dog), Kidney(Decreased organ weight, Retrograde nephropathy：Mouse), Urinary bladder(Hyperplasia of mucosal epithelium：Rat)／Increased incidence of urinary bladder transitional cell papilloma：Male rat, Increased incidence of adrenal pheochromocytoma：Female rat	Oral(capsule)	Subacute／Chronic toxicity study	90 days／1year	Dog	Degeneration of sciatic nerve, Degeneration of axon and myelin sheath in bone marrow of cervical, thoracic, and lumbar regions	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190123010&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190123010&fileId=210	2019/8/27	–
358	Quinclorac	84087-01-4	・Agricultural products：Quinclorac, methyl 3,7-dichloro-8-quinoline carboxylate ・Livestock products：Quinclorac(Parent compound only)	Pesticides	Herbicide	Quinolinecarboxylic acid	Inhibition of cell wall biosynthesis	Negative	Suppressed body weight gain	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased absolute/relative kidney weight	NOAEL: 34.9 mg/kg bw per day	ADI: 0.34 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male	NOAEL: 150 mg/kg bw	1.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20131114379&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160511023&fileId=201	2016/7/12	The English report is the first edition published on February 3, 2015
359	Quinoclamine	2797-51-5	Agricultural and fishery products：Quinoclamine(Parent compound only)	Pesticides	Herbicide	Naphthoquinone	Inhibition of photosynthesis	Negative	Suppressed body weight gain, Urinary tract(Epithelial hyperplasia)／Increased urinary bladder transitional cell papilloma：Rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Renal pelvic epithelial hyperplasia	NOAEL: 0.21 mg/kg bw per day	ADI: 0.0021 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100927557&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100927557&fileId=201	2013/10/7	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
360	Quinofumelin	861647-84-9	Agricultural and fishery products：quinofumelin(Parent compound only) livestock products:quinofumelin and its Metabolite M3（including metabolites converted to M3 by enzymatic and acidic hydrolysis).	Pesticides	Fungicide	Quinoline	–	Negative	Suppressed body weight gain, liver(Increased organ weight, Hepatocellular hypertrophy), large intestine(erosion/tumor、Inflammation、Mucosal hyperplasia：Mouse) Decreased normal morphology sperm rate, Reduced copulation rate, Prolonged period for mating：Male rat, Prolonged estrous cyclicity, Reduced estrous cyclicity late, Prolonged gestational period, Decreased numbers of implantation and infant：Female rat	Oral (capsule)	Chronic toxicity study	1 year	Dog	Decreased WBC, Increased GGT, Increased absolute/relative liver weight, Liver(Hepatocellular pigment deposition), Diffuse hypertrophy of hepatocytes(Pyraziflumid)	NOAEL: 3 mg/kg bw per day	ADI: 0.03 mg/kg bw	SF:100	Oral (gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain and Decreased feed intake：Materna	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20230713117&fileId=210	2024/1/25	–
361	Quinoxyfen	124495-18-7	Agricultural products： Quinoxyfen(Parent compound only)	Pesticides	Fungicide	Quinoline	–	Negative	Liver(Increased ALP, Hepatocellular hypertrophy, Single cell necrosis), Decreased feed intake, Suppressed body weight gain, Decreased body weight	(a)(b)(c)Oral(feed)	(a)Combined chronic toxicity/carcinogenicity study (b)Chronic toxicity study (c)Two-generation reproductive activity study	(a)2 years (b)1 year (c)–	(a)(c)Rat (b)Dog	(a)Increased liver weight, Increased kidney weight, Increased incidence of rough surface in kidney (b)Decreased feed intake, Suppressed body weight gain, Emaciation (c)Renal tubular calcification, Tubulointerstitial nephritis	NOAEL: 20 mg/kg bw per day	ADI: 0.2 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20061219011&fileId=002	2007/8/30	–
362	Quizalofop ethyl (Quizalofop P ethyl), Quizalofop P tefuryl ※5	76578-14-8 (as Quizalofop ethyl), 100646-51-3 (as Quizalofop P ethyl), 119738-06-6 (as Quizalofop P tefuryl)	・Agricultural and fishery products：Quizalofop ethyl, Quizalofop P tefuryl, Quizalofop ・Livestock products：Quizalofop ethyl, Quizalofop ・Fishery products：Quizalofop ethyl, Quizalofop	Pesticides	Herbicide	Phenoxypropionic	Inhibition of fatty acid biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Testis(Decreased organ weight, Atrophy), Blood(Anemia)／Increased incidence of Kidney squamous cell carcinoma, leydig cell tumor, hepatocellular adenoma and hepatocellular tumor：Rat／Reduced conception rate, Decreased number of offspring, Cleft Palate and Tail Abnormality：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 0.9 mg/kg bw per day	ADI: 0.009 mg/kg bw (as a group ADI of Quizalofop ethyl and Quizalofop P tefuryl)	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Soiled perineal region：Maternal	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw (as a group ARfD of Quizalofop ethyl and Quizalofop P tefuryl)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20221019186&fileId=210	2023/3/29	–
363	Quizalofop ethyl (Quizalofop P ethyl) ※5	76578-14-8 (as Quizalofop ethyl), 100646-51-3 (as Quizalofop P ethyl)	Agricultural, livestock and fishery products：Quizalofop ethyl, Quizalofop	Pesticides	Herbicide	Phenoxypropionic	Inhibition of fatty acid biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Testis(Atrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 0.9 mg/kg bw per day	ADI: 0.009 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20221019186&fileId=210	2023/3/29	Evaluated as a group of Quizalofop ethyl and Quizalofop P tefuryl. Please see #360.
364	Quizalofop P tefuryl ※5	119738-06-6	Agricultural products：Quizalofop P tefuryl, Quizalofop	Pesticides	Herbicide	Phenoxypropionic	Inhibition of fatty acid biosynthesis	Negative	Liver(Hepatocellular hypertrophy), Testis(Decreased organ weight), Blood(Anemia)／Increased incidence of Kidney squamous cell carcinoma, leydig cell tumor, hepatocellular adenoma and hepatocellular tumor：Rat／Reduced conception rate, Decreased number of offsprin, Cleft Palate and Tail Abnormality：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hepatocellular hyperplasia	NOAEL: 1.3 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Soiled perineal region：Maternal	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20221019186&fileId=210	2023/3/29	Evaluated as a group of Quizalofop ethyl and Quizalofop P tefuryl. Please see #360.
365_1	Saflufenacil	372137-35-4	Agricultural and livestock products：Saflufenacil(Parent compound only)	Pesticides	Herbicide	Sulfonylamide	Inhibition of protcporphyrinogen IX oxidase activity	Negative	Blood(Microcytic hypochromic anemia), Liver(Fatty degeneration)／Decreased survival rate at four days postnatal, Skeletal malformation：Rat	Oral(feed)	Carcinogenicity study	18 months	Mouse	Hepatic ceroid deposition：Male	NOAEL: 0.9 mg/kg bw per day	ADI: 0.009 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable (for general population)	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20150805416&fileId=201	2015/12/22	–
365_2	Saflufenacil	372137-35-4	Agricultural and livestock products：Saflufenacil(Parent compound only)	Pesticides	Herbicide	Sulfonylamide	Inhibition of protcporphyrinogen IX oxidase activity	Negative	Blood(Microcytic hypochromic anemia), Liver(Fatty degeneration)／Decreased viability Index on Day 4, Skeletal malformation：Rat	Oral(feed)	Carcinogenicity study	18 months	Mouse	Hepatic ceroid deposition：Male	NOAEL: 0.9 mg/kg bw per day	ADI: 0.009 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Skeletal malformation：Fetus	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20150805416&fileId=201	2015/12/22	–
366	Sedaxane	87497-67-6	Agricultural products： Sedaxane(Parent compound only)	Pesticides	Fungicide	Pyrazolecarboxamide	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Decreased feed intake, Liver(Increased organ weight, Centrilobular hepatocellular hypertrophy)／Increased incidence of uterina adenocarcinoma：Rat, Increased incidence of hepatic tumor：Mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy, Hypertrophy of thyroid follicular epithelial cell：Male	NOAEL: 11 mg/kg bw per day	ADI: 0.11 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Exhaustion, Staggering gait, Listless	NOAEL: 30 mg/kg bw	0.3 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140203019&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20201111141&fileId=210	2021/3/16	The English report is the first edition published on December 16, 2014
367	Sethoxydim	74051-80-2	・Agricultura products：Sethoxydim, 2-[1-(ethoxyimino)butyl]-5-[2-(ethylsulfinyl)propyl]-3-hydroxylcyclohex-2-en-1-one, 2-[1-(ethoxyimino)butyl]-5-[2-(ethylsulfonyl)propyl]-3-hydroxylcyclohex-2-en-1-one, 6-[2-(ethylsulfinyl)propyl]-4-oxo-2-propyl-4,5,6,7-tetrahydrobenzoxazole, 2-[1-(ethoxyimino)butyl]-5-[2-(ethylsulfonyl)propyl]-3,5-dihydroxycyclohex-2-en-1-one ・Livestock products：Sethoxydim, 2-[1-(ethoxyimino)butyl]-5-[2-(ethylsulfinyl)propyl]-3-hydroxylcyclohex-2-en-1-one, 2-[1-(ethoxyimino)butyl]-5-[2-(ethylsulfonyl)propyl]-3-hydroxylcyclohex-2-en-1-one ・Fishery products：Sethoxydim(Parent compound only)	Pesticides	Herbicide	Cyclohexanedione	Inhibition of fatty acid biosynthesis	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy, Hepatocellular fatty degeneration), Suppressed body weight gain, Blood(Anemia：Dog)／External and Skeletal anomaly：Rat(Fetus)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased ALP：Male	NOAEL: 8.86 mg/kg bw per day	ADI: 0.088 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight, Ataxic gait：Maternal, External and Skeletal anomaly：Fetus	NOAEL: 180 mg/kg bw per day	1.8 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20111101232&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20221019187&fileId=210	2022/12/14	The English report is the first edition published on December 4, 2018
368	Silafluofen	105024-66-6	Agricultural, livestock and fishery products：Silafluofen(Parent compound only)	Pesticides	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Liver(Increased organ weight), Testis(Decreased organ weight)	Oral(feed)	Chronic toxicity study	1 year	Dog	Increased PLT and ALP, Decreased RBC, Hb and Ht：Female	NOAEL: 11 mg/kg bw per day	ADI: 0.11 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20110325734&fileId=201	2012/2/9	–
369_1	Simeconazole	149508-90-7	・Agricultural and fishery products：Simeconazole(Parent compound only) ・Livestock products：Simeconazole(Including glucuronic acid conjugate)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy)／Increased incidence of hepatocellular adenoma：Male rat and Mouse／Reduced gestation rate：Rat(Maternal), Renal pelvic dilatation：Rat(Offspring), Increased skeletal variation：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Proximal tubular pigment deposition	NOAEL: 0.85 mg/kg bw per day	ADI: 0.0085 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight：Maternal	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw (for general population)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220713113&fileId=210	2022/10/12	–
369_2	Simeconazole	149508-90-7	・Agricultural and fishery products：Simeconazole(Parent compound only) ・Livestock products：Simeconazole(Including glucuronic acid conjugate)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy)／Increased incidence of hepatocellular adenoma：Male rat and Mouse／Reduced gestation rate：Rat(Maternal), Renal pelvic dilatation：Rat(Offspring), Increased skeletal variation：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Proximal tubular pigment deposition	NOAEL: 0.85 mg/kg bw per day	ADI: 0.0085 mg/kg bw	SF:100	Oral(feed)	Two-generation reproductive activity study	Rat	Renal pelvic dilatation：Offspring	NOAEL: 9 mg/kg bw per day	0.09 mg/kg bw (for women of childbearing age)	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220713113&fileId=210	2022/10/12	–
370	Spinetoram	187166-40-1 (as Spinetoram-J), 187166-15-0 (as Spinetoram-L)	Agricultural and livestock products：Spinetoram(Parent compound only)	Pesticides	Insecticide	Macrolide	Inhibition of neural transmission	Negative	Vacuolation of epithelium cell：Thyroid, Kidney and Epididymis, Phospholipidosis：Multiple organs	Oral(feed)	Chronic toxicity study	1 year	Dog	Arteritis	NOAEL: 2.49 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20200728096&fileId=210	2020/9/29	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
371	Spinosad	168316-95-8 [131929-60-7 + 131929-63-0(as mixture with SpinosynA and Spinosyn D)]	Agricultural and livestock products：Spinosyn A, Spinosyn D	Pesticides & Veterinary Medicinal Products	Insecticide	Macrolide	Action on the nicotinic acetylcholine receptor, affecting the synapses	Negative	Phospholipidosis(Vacuolation in the cytoplasm)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Vacuolation of thyroid follicular epithelial cell	NOAEL: 2.4 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	–	–	–	–	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210322034&fileId=211	2021/6/15	–
372	Spirodiclofen	148477-71-8	・Agricultural products：Spirodiclofen(Parent compound only) ・Livestock products：Spirodiclofen, 3-(2,4-dichlorophenyl)-4-hydroxy-1-oxaspiro[4.5]dec-3-en-2-one	Pesticides	Insecticide (Acaricide)	Tetronic acid	Inhibition of lipid biosynthesis	Negative	Adrenal gland(Vacuolation of adrenal cortex), Testis(Leydig cell hypertrophy)／Increased leydig cell tumor：Male rat, Increased uteruterina adenocarcinoma：Female rat, Increased hepatocellular adenoma/carcinoma：Male mouse／Atrophy of testis and epididymis, Decreased number of spermatozoon：Rat(Male parent)	Oral(feed)	Chronic toxicity study	1 year	Dog	Vacuolation of the adrenal zona fasciculata	NOAEL: 1.38 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100125004&fileId=201	2012/4/19	–
373	Spiromesifen	283594-90-1	Agricultural and fishery products：Spiromesifen, 4-hydroxy-3-mesityl-1-oxaspiro [4.4] non-3-en-4-yl 3,3-dimethylbutyrate	Pesticides	Insecticide	Cyclic ketoenol	Inhibition of acetyl-CoA carboxylase	Negative	Liver(Increased organ weight), Thyroid(Hypertrophy of follicular cell), Adrenal gland(Cytoplasmic acidophilic change), Duodenum and Jejunum(Vacuolation of mucosal epithelium cytoplasm)	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain：Parent	NOAEL: 2.2 mg/kg bw per day	ADI: 0.022 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140203018&fileId=201	2014/4/22	–
374	Spirotetramat	203313-25-1	Agricultural and livestock products：Spirotetramat(Parent compound only)	Pesticides	Insecticide	Cyclic ketoenol	Inhibition of acetyl-CoA carboxylase	Negative	Liver(Increased organ weight：Rat), Kidney(Renal tubular dilatation：Rat), Lung(Alveolus macrophage accumulation, Interstitial pneumonia：Rat), Testis(Seminiferous tubular degeneration：Rat)／Increased anomaly spermatozoon：Rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Decreased absolute/relative kidney weight	NOAEL: 12.5 mg/kg bw per day	ADI: 0.12 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Soiled fur, Decreased ambulatory movement：Male	NOAEL: 100 mg/kg bw	1 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180418015&fileId=210	2018/5/22	–
375	Sulfoxaflor	946578-00-3	Agricultural and livestock products：Sulfoxaflor(Parent compound only)	Pesticides	Insecticide	Sulfoximine	Action on the nicotinic acetylcholine receptor	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Testis(Increased organ weight)／Increased incidence of hepatocellular adenoma and testis interstitial cell adenoma：Male rat, Increased incidence of hepatocellular adenoma/cartinoma：Mouse／Neonatal mortality：Rat, Abnormality of extremities：Rat(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased absolute/relative Testis weight：Male	NOAEL: 4.25 mg/kg bw per day	ADI: 0.042 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity	NOAEL: 25 mg/kg bw	0.25 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130820273&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630144&fileId=210	2021/8/31	The English report is the third edition published on October 29, 2014
376	tau-Fluvalinate	102851-06-9	Agricultural products：Fluvalinate(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide(Acaricide)	Pyrethroid	Inhibition of neural transmission	Negative	Salivation, Reduced motor activity, Abnormal gait, Suppressed body weight gain, Blood(Anemia), Skin(Dehairing, Crust)	Oral(gavage)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 0.5 mg/kg bw per day	ADI: 0.005 mg/kg bw	SF:100	Oral(gavage)	Comprehensive evaluation of subacute neurotoxicity study and developmental neurotoxicity study	Rat	Listless, Hunchback position：Male, Salivation：Female	NOAEL: 6 mg/kg bw per day	0.06 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170215175&fileId=201	2017/8/22	–
377	TCMTB	21564-17-0	Agricultural products：TCMTB(Parent compound only)	Pesticides	Fungicide	Thiazole	–	Negative	Suppressed body weight gain, Gastrointestine(Inflammation)／Increased incidence of testicular interstitial cell tumors：Male rat, Increased incidence of thyroid C-cell adenoma：Female rat	Oral(feed)	Chronic toxicity study	1 year	Dog	Decreased ALT	LOAEL: 3.8 mg/kg bw per day	ADI: 0.012 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080325007&fileId=021	2010/9/16	–
378	Tebuconazole	107534-96-3	Agricultural and livestock products：Tebuconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of sterol biosynthesis	Negative	Suppressed body weight gain, Liver(Fatty degeneration)／hepatocellular tumor：Mouse／Decreased number of littermate at birth, Reduced weaning rate：Rat, Low body weight, Delayed ossification, Malformation：Rat, Mouse and Rabbit(Fetus)	Oral(feed)	Chronic toxicity study	1 year	Dog	Minorhypertrophy of the adrenal zona fasciculata cells	NOAEL: 2.94 mg/kg bw per day	ADI: 0.029 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat and Rabbit	Decreased body weight, Suppressed body weight gain：Maternal	NOAEL: 30 mg/kg bw per day	0.3 mg/kg bw	SF:100	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20190619025&fileId=210	2019/10/1	–
379	Tebufenozide	112410-23-8	Agricultural and fishery products：Tebufenozide(Parent compound only)	Pesticides	Insecticide	Benzoylhydrazide	Induction of abnormal molting	Negative	Blood(Hemolytic anemia, Methemoglobinemia), Suppressed body weight gain／Increased non gestational rate, Decreased average number of live born and infant	Oral(feed)	Two-generation reproductive activity study	–	Rat	Increased splenic congestion：Male parent	NOAEL: 1.6 mg/kg bw per day	ADI: 0.016 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160209498&fileId=201	2016/5/17	–
380	Tebufenpyrad	119168-77-3	Agricultural products：Tebufenpyrad(Parent compound only)	Pesticides	Insecticide (Acaricide)	Pyrazole	Inhibition of electron transfer system in photosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight)／Increased incidence of hepatocellular adenoma：Male rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain	NOAEL: 0.82 mg/kg bw per day	ADI: 0.0082 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 15 mg/kg bw per day	0.15 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124680&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230308032&fileId=210	2023/5/17	The English report is the first edition published on May 22, 2018
381	Tebufloquin	376645-78-2	Agricultural and fishery products：Tebufloquin, 6-tert-butyl-8-fluoro-2,3-dimethyl-4(1H)-quinolinone	Pesticides	Fungicide	–	Inhibition of electron transfer system in photosynthesis	Negative	Hematopoietic system(Hemolytic anemia, Splenic congestion, Increased extramedullary hematopoiesis), Liver(Altered hyatocellular foci：Rat), Biliary tract(Hyperplasia of mucosal epithelium：Dog), Blod vessel(Aortitis：Mouse), Urinary bladder(Hyperplasia of mucosal epithelium)／Increased incidence of skeletal variation(Extra Rib)：Rat	Oral(feed)	Two-generation reproductive activity study	–	Rat	Suppressed body weight gain, Increased absolute/relative thymus weight：Offspring	NOAEL: 4.13 mg/kg bw per day	ADI: 0.041 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20140203020&fileId=201	2014/4/22	–
382	Teflubenzuron	83121-18-0	Agricultural products：Teflubenzuron(Parent compound only)	Pesticides & Veterinary Medicinal Products	Insecticide	Benzoylurea	Inhibition of chitin synthesis	Negative	Liver(Hepatocellular hypertrophy, Single cell necrosis, Altered hepatocellular foci)／Increased incidence of hepatocellular adenoma：Male mouse	Oral(feed)	Carcinogenicity study	78 weeks	Mouse	Hepatocellular single cell necrosis：Male	NOAEL: 2.1 mg/kg bw per day	ADI: 0.021 mg/kg bw	SF:100	–	–	–	–	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	–	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170315214&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170315214&fileId=210	2017/12/12	–
383	Tefuryltrione	473278-76-1	Agricultural products：Tefuryltrione(Parent compound only)	Pesticides	Herbicide	Triketone	Inhibition of 4-HPPDase	Negative	Eye(Corneal opacity, Neovascularization：Rat and Dog) 、Increased body weight, Blood(Anemia：Dog) , Liver(Centrilobular hepatocellular hypertrophy, Increased relative weight)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Corneal opacity, keratitis	NOAEL: 0.08 mg/kg bw per day	ADI: 0.0008 mg/kg bw	SF:100	–	–	–	–	–	Not evaluated	–	–	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080111003&fileId=002	2009/2/19	–
384_1	Tepraloxydim	149979-41-9	・Agricultural products：Tepraloxydim(Parent compound only) ・Livestock products：Tepraloxydim, (RS)-3-hydroxy-2-propionyl-5-perhydropyran-4-ylcyclohex-2-en-1-one	Pesticides	Herbicide	Cyclohexanedione	Inhibition of fatty acid biosynthesis	Negative	Suppressed body weight gain, Liver(Centrilobular hepatocellular hypertrophy), Thyroid(Increased organ weight：Dog), Testis(Seminiferous tubular atrophy：Dog), Urinary system(Hyperplasia of urinary bladder epithelium：Dog)／Increased incidence of total of hepatocellular adenoma/cartinoma：Female rat and Female mouse／External malformation：Rat(Fetus)	Oral(feed)	Chronic toxicity study／Carcinogenicity study	2 years	Rat	Acidophilic altered hepatocellular foci	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity	LOAEL: 500 mg/kg bw	1.6 mg/kg bw (for general population)	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124684&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124684&fileId=201	2015/5/12	–
384_2	Tepraloxydim	149979-41-9	・Agricultural products：Tepraloxydim(Parent compound only) ・livestock products：Tepraloxydim, (RS)-3-hydroxy-2-propionyl-5-perhydropyran-4-ylcyclohex-2-en-1-one	Pesticides	Herbicide	Cyclohexanedione	Inhibition of fatty acid biosynthesis	Negative	Suppressed body weight gain, Liver(Centrilobular hepatocellular hypertrophy), Thyroid(Increased organ weight：Dog), Testis(Seminiferous tubular atrophy：Dog), Urinary system(Hyperplasia of urinary bladder epithelium：Dog)／Increased incidence of total of hepatocellular adenoma/cartinoma：Female rat and Female mouse／External malformation：Rat(Fetus)	Oral(feed)	Chronic toxicity study／Carcinogenicity study	2 years	Rat	Acidophilic altered hepatocellular foci	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Delayed ossification, Low body weight：Fetus	NOAEL: 40 mg/kg bw per day	0.4 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124684&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20110124684&fileId=201	2015/5/12	–

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ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs						Reference value	SF、UF	Data for ARfDs					ARfD	SF	Reports		Date of latest evaluation	Remarks
										Point of Deparature								Point of Deparature							English (Summary/Full)	Japanese		
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
385	Tetraconazole	112281-77-3	Agricultural and livestock products：Tetraconazole(Parent compound only)	Pesticides	Fungicide	Triazole	Inhibition of ergosterol biosynthesis	Negative	Liver(Centrilobular hepatocellular hypertrophy), Kidney(Hypertrophy of tubular epithelium cell in renal cortex：Dog), Bone(Thickening of skull), Decreased locomotor activity／Increased hepatocellular adenoma/cartinoma：Mouse／Increased incidence of hydronephrosis and hydroureter：Rat(Fetus), Extended gestation period	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 0.4 mg/kg bw per day	ADI: 0.004 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain：Maternal	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080708006&fileId=2501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210825175&fileId=211	2021/10/26	The English report is the first edition published on August 18, 2015
386	Tetradifon	116-29-0	Agricultural products：Tetradifon(Parent compound only)	Pesticides	Insecticide (Acaricide)	Diphenylsulfone	—	Negative	Liver(Hepatocellular hypertrophy, Hepatocellular single cell necrosis), Thyroid(Increased organ weight：Rat), Lung(Alveolus macrophage accumulation)／Increased thyroid follicular adenoma：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Localized alveolus macrophage accumulation	NOAEL: 1.39 mg/kg bw per day	ADI: 0.013 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100913528&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20100913528&fileId=210	2018/9/4	—
387	Tetraniliprole	1229654-66-3	Agricultural, livestock and fishery products：Tetraniliprole(Parent compound only)	Pesticides	Insecticide	Anthranilamide	Activating calcium release channels of ryanodine-sensitive intracellular	Negative	Suppressed body weight gain, Uterus and Vagina(Hyperplasia of squamous epithelium ：Rat), Ovary(Decreased corpus luteum ：Elderly rat)	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 88.4 mg/kg bw per day	ADI: 0.88 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20170927102&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210630145&fileId=210	2021/9/7	The English report is the first edition published on September 4, 2018
388	Thiabendazole	148-79-8	・Agricultural products：Thiabendazole(Parent compound only) ・Livestock products：Thiabendazole, Benzimidazole	Pesticides, Additives & Veterinary Medicinal Products	Fungicide	Heterocyclic	Inhibition of cell division	Negative	Liver(Hepatocellular hypertrophy), Thyroid(Hyperplasia of follicular cell)、Kidney(Hyperplasia of renipelvic transitional epithelium)、Blood(Anemia)／Increased incidence of thyroid follicular cell adenoma and preputial glands adenoma：Rat／Increased incidence of fetal malformation：Rabbit	(a)(b)Oral(feed) (c)Oral(gavage) (d)Oral(capsule)	(a)Combined chronic toxicity/carcinogenicity study (b)Two-generation reproductive activity study (c)Developmental toxicity study (d)Chronic toxicity study	(a)2 years (b)— (c)6 - 17 days of pregnancy (d)1 year	(a)(b)(c) Rat (d)Dog	(a)Suppressed body weight gain：Male (b)Suppressed body weight gain：MaleParent (c)Suppressed body weight gain：Maternal, Low body weight：Fetus (d)Increased absolute/relative liver weight	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101210007&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20101210007&fileId=201	2014/12/10	—
389	Thiacloprid	111988-49-9	Agricultural and livestock products：Thiacloprid(Parent compound only)	Pesticides	Insecticide	Neonicotinoid	Disturbance of sodium release channels of nervous systems	Negative	Liver (Hepatocellular hypertrophy)、Thyroid (Follicular cell hypertrophy)、Adrenal (hypertrophy of the adrenal X-zone：mice)／Increased incidences of thyroid follicular cell adenoma：Male rat, Increased incidences of uterine adenocarcinoma ：Female rat, Increased incidences of luteoma：Female mouse／Increased incidences of stillbirth, dystocia and skeletal alterations：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Follicular cell hypertrophy：Male	NOAEL: 1.2 mg/kg bw per day	ADI: 0.012 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased motor and locomotor activity	NOAEL: 3.1 mg/kg bw	0.031 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011227&fileId=212	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20111011227&fileId=210	2018/10/23	—
390	Thiamethoxam	153719-23-4	Agricultural and livestock products：Thiamethoxam(Parent compound only)	Pesticides	Insecticide	Neonicotinoid	Action as an agonist at the nicotinic acetylcholine receptor, affecting the synapses	Negative	Kidney (Hyaline droplet accumulation in renal tubule), Liver (Inflammatory cellula infiltration, Hepatocellular hypertrophy) ／ Increase in hepatocellular adenoma and carcinoma：Mouse	Oral(feed)	Two-generation reproductive activity study	—	Rat	Hyaline droplet accumulation in renal tubule：Male	NOAEL: 1.84 mg/kg bw per day	ADI: 0.018 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight and feed intake：Maternal	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20150113250&fileId=201	2015/7/28	—
391	Thiazopyr	117718-60-2	Agricultural products：Thiazopyr(Parent compound only)	Pesticides	Herbicide	Pyridine	Inhibition of cell division	Negative	Thyroid(Swelling, Increased absolute/relative weight, Hyperplasia of follicular epithelial cell), Liver(Hepatocellular hypertrophy/hyperplasia)／Increased incidence of thyroid follicular adenoma：Rat	Oral(feed)	Two-generation reproductive activity study	—	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 0.72 mg/kg bw per day	ADI: 0.0072 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070605013&fileId=002	2008/6/5	—
392	Thidiazuron	51707-55-2	Agricultural products：Thidiazuron(Parent compound only)	Pesticides	Plant Growth Regulator	Urea	Promotion of defoliation	Negative	Suppressed body weight gain, Kidney(Vacuolation of glomerulus, Mineralization：Rat), Liver(Hepatocellular hypertrophy), Blood(Anemia：Dog), Testis(Atrophy)	Oral(feed)	Chronic toxicity study	1 year	Dog	Anemia symptom：Male	NOAEL: 3.93 mg/kg bw per day	ADI: 0.039 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20070306008&fileId=002	2009/12/3	—
393	Thiencarbazone-methyl	317815-83-1	Agricultural and livestock products：Thiencarbazone-methyl(Parent compound only)	Pesticides	Herbicide	Sulfonylaminocarbonyltriazolinone	Inhibition of acetolactate synthase(ALS)	Negative	Kidney(Renal pelvic dilatation：Rat and Mouse), Urinary bladder(Calculus, Inflammation, Hyperplasia of transitional epithelium)／Urinary bladder transitional cell papilloma：Mouse, Urethra transitional epithelium carcinoma：Male mouse, Urinary bladder transitional epithelium carcinoma：Female mouse	Oral(feed)	Chronic toxicity study	1 year	Dog	Urinary bladder calculus, Urinary bladder inflammation, Hyperplasia of urinary bladder transitional epithelium：Male	NOAEL: 117 mg/kg bw per day	ADI: 1.1 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200611082&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200611082&fileId=210	2020/10/20	—
394	Thifensulfuron methyl	79277-27-3	Agricultural products：Thifensulfuron methyl(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Male	NOAEL: 0.96 mg/kg bw per day	ADI: 0.0096 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b) Developmental toxicity study	(a)Rat (b)Rabbit	(a)Suppressed body weight gain：Maternal (b)Decreased body weight：Maternal	NOAEL: 200 mg/kg bw per day	2 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130130018&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130130018&fileId=201	2015/12/22	—
395	Thifluzamide	130000-40-7	・Agricultural and fishery products：Thifluzamide(Parent compound only) ・Livestock products：Thifluzamide, N-[2,6-dibromo-4-(trifluoromethoxy)phenyl]-2-(hydroxymethyl)-4-(trifluoromethyl)-5-thiazolecarboxamide	Pesticides	Fungicide	Acid amide	Inhibition of electron transfer system in photosynthesis	Negative	Liver(hepatocellular vacuolation：Rat), Adrenal gland(Increased organ weight, Vacuolation of adrenal cortex：Dog), Kidney(Renal tubular dilatation), Nervous system(Degeneration of axon and myelin sheath：Dog)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular fatty degeneration	NOAEL: 1.4 mg/kg bw per day	ADI: 0.014 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b)Developmental toxicity study	(a)Rat (b)Rabbit	(a)Decreased body weight：Maternal (b)Decreased body weight, Decreased feed intake：Maternal	NOAEL: 25 mg/kg bw per day	0.25 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220928172&fileId=210	2023/11/1	—
396	Thiobencarb	28249-77-6	Agricultural, livestock and fishery products：Thiobencarb(Parent compound only)	Pesticides	Herbicide	Thiocarbamate	Inhibition of fatty acid biosynthesis	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Kidney(Deposition of hyaline droplet)／Abnormal gait, Reduced sensorial reactivity	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Male	NOAEL: 0.9 mg/kg bw per day	ADI: 0.009 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Abnormal gait, Reduced physical activity and sensorial reactivity	NOAEL: 100 mg/kg bw	1 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220928171&fileId=210	2023/11/1	—
397	Thiocyclam hydrogen oxalate ※2	31895-22-4	Agricultural products：Thiocyclam hydrogen oxalate, Thiocyclam, Nereistoxin	Pesticides	Insecticide	Nereistoxin	Inhibition of acetylcholinesterase activity	Negative	Suppressed body weight gain, Convulsion	Oral(feed)	Chronic toxicity study	2 years	Dog	Salivation	NOAEL: 2.11 mg/kg bw per day	ADI: 0.021 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181210142&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230831143&fileId=210	2024/1/17	Evaluated as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate. Please see #61. The English report is the first edition published on June 4, 2019
398	Tiadinil	223580-51-6	・Agricultura products：Tiadinil, 4-methyl-1,2,3-thiadiazole-5-carboxylic acid, 4-hydroxymethyl-1,2,3-thiadiazole-5-carboxylic acid ・Livestock products：Tiadinil, 2-chloro-4-(4-methyl-1,2,3-thiadiazole-5-ylcarbonylamino)benzoic acid ・Fishery products：Tiadinil(Parent compound only)	Pesticides	Fungicide	Thiadiazolecarboxamid	Induction of disease resistance	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Kidney(Vacuolation of renal tubule epithelium)／Increased incidence of hepatocellular adenoma：Mouse	Oral(capsule)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain	NOAEL: 4 mg/kg bw per day	ADI: 0.04 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)(b) Developmental toxicity study	(a)Rat (b)Rabbit	(a)Decreased body weight, Suppressed body weight gain, Decreased feed intake：Maternal (b)Decreased body weight, Suppressed body weight gain：Maternal	NOAEL: 150 mg/kg bw per day	1.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200213027&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20200213027&fileId=210	2020/9/15	—

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
399_1	Tioxazafen	330459-31-9	Agricultural and livestock products：Tioxazafen, Benzamidine	Pesticides	Nematicide	Oxadiazolone	Inhibition of protein biosynthesis	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Suppressed body weight gain, Adrenal gland(Vacuolation of cortex cell：Rat), Femur(Metaphyseal proliferation：Rat)／Increased incidence of hepatocellular cartinoma：Male mouse, Increased incidence of hepatocellular adenoma：Female mouse	(a)Oral(feed) (b)Oral(gavage)	(a)Two-generation reproductive activity study (b)Developmental toxicity study	(a)— (b)7 - 28 days of pregnancy	(a)Rat (b)Rabbit	(a)Vacuolation of the adrenal zona fasciculata cells：Male parent (b)Decreased body weight, Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Decreased locomotor activity：Male, Decreased locomotor activity, Hypothermia：Female	LOAEL: 250 mg/kg bw	0.5 mg/kg bw	SF:500 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:5	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20191218112&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20191218112&fileId=210	2020/9/1	—
399_2	Tioxazafen	330459-31-9	Agricultural and livestock products：Tioxazafen, Benzamidine	Pesticides	Nematicide	Oxadiazolone	Inhibition of protein biosynthesis	Negative	Liver(Increased organ weight, Hepatocellular hypertrophy), Suppressed body weight gain, Adrenal gland(Vacuolation of cortex cell：Rat), Femur(Metaphyseal proliferation：Rat)／Increased incidence of hepatocellular cartinoma：Male mouse, Increased incidence of hepatocellular adenoma：Female mouse	(a)Oral(feed) (b)Oral(gavage)	(a)Two-generation reproductive activity study (b)Developmental toxicity study	(a)— (b)7 - 28 days of pregnancy	(a)Rat (b)Rabbit	(a)Vacuolation of the adrenal zona fasciculata cells：Male parent (b)Decreased body weight, Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain, Decreased feed intake：Maternal	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20191218112&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20191218112&fileId=210	2020/9/1	—
400	Tolclofos-methyl	57018-04-9	Agricultural products：Tolclofos-methyl(Parent compound only)	Pesticides	Fungicide	Organophosphorus	Inhibition of cell division	Negative	Suppressed body weight gain, Inhibition of ChE activity(more than 20%), Blood(Anemia：Dog), Liver(Increased organ weight, Hepatocellular hypertrophy)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Mouse	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 6.45 mg/kg bw per day	ADI: 0.064 mg/kg bw	SF:100	Oral(feed)	Subacute toxicity study	Mouse	Inhibition of erythrocyte ChE activity(more than 20%)	NOAEL: 13.8 mg/kg bw per day	0.13 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120821616&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20120821616&fileId=210	2019/10/28	—
401	Tolfenpyrad	129558-76-5	Agricultural products：Tolfenpyrad(Parent compound only)	Pesticides	Insecticide	Pyrazole	Inhibition of complex I of the respiratory electron transport chain in the mitochondria	Negative	Liver(Hepatocellular hypertrophy), Kidney(Hypertrophy of the proximal renal tubular epithelium)／Prolonged gestation period：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased relative liver and kidney weight：Male	NOAEL: 0.56 mg/kg bw per day	ADI: 0.0056 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Suppressed body weight gain and Decreased feed intake：Maternal	NOAEL: 1 mg/kg bw per day	0.01 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20200728097&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20200728097&fileId=210	2020/11/24	—
402	Tolprocarb	911499-62-2	Agricultural and fishery products：Tolprocarb(Parent compound only)	Pesticides	Fungicide	—	Inhibition of melanin biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Thyroid(Increased organ weight, Colloid degeneration)	Oral(feed)	Carcinogenicity study	2 years	Rat	Decreased WBC：Female	NOAEL: 20.5 mg/kg bw per day	ADI: 0.2 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140203021&fileId=502	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20140203021&fileId=201	2014/11/18	—
403	Tolpyralate	1101132-67-5	Agricultural products：Tolpyralate(Parent compound only)	Pesticides	Herbicide	Pyrazole	Inhibition of 4-HPPDase	Negative	Eye ball(Keratitis), Nervous system(Vacuolation of molecular layer of cerebellar cortex：Rat), Kidney(Tubular basophilia changes), Liver(Hepatocellular hypertrophy), Gallbladder(Calculus：Mouse)／Corneal squamous cell papilloma/carcinoma：Rat	Oral(feed)	Carcinogenicity study	2 years	Rat	Keratitis	NOAEL: 0.765 mg/kg bw per day	ADI: 0.0076 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Decreased body weight and feed intake：Maternal	NOAEL: 10 mg/kg bw per day	0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190523010&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20190523010&fileId=210	2019/12/3	—
404	Tolylfluanid	731-27-1	Agricultural products：Tolylfluanid, Dimethylaminosulfotoluidine	Pesticides	Fungicide	Phenylsulfamide	Inhibition of SH-enzymes	Negative	Bone(Increased fluorine concentration, Osteosclerosis), Tooth(Increased fluorine concentration, Incisor elongation), Kidney(Mineralization of renal papilla, Increased absolute/relative weight), Liver(Peripheral hepatocellular hypertrophy, Increased absolute/relative weight)／Thyroid follicular cell tumor：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased fluorine concentration of tooth	NOAEL: 3.6 mg/kg bw per day	ADI: 0.036 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20080603006&fileId=002	2008/9/4	—
405	Tralomethrin ※4	66841-25-6	Agricultural products：Tralomethrin, Deltamethrin	Pesticides	Insecticide	Pyrethroid	Inhibition of neural transmission	Negative	Suppressed body weight gain, Skin(Dermatitis), Nervous system(Convulsion)	(a)(b)Oral(gavage)	(a)(b)Combined chronic toxicity/carcinogenicity study	(a)(b)2 years	(a)Rat (b)Mouse	(a)Suppressed body weight gain (b)Dermatitis：Male	NOAEL: 0.75 mg/kg bw per day	ADI: 0.0075 mg/kg bw	SF:100	—	—	—	—	—	—	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20130808261&fileId=301	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20130808261&fileId=201	2015/1/13	Evaluated as a group of Deltamethrin and Tralomethrin. Please see #102.
406	Triafamone	874195-61-6	Agricultural products：Triafamone(Parent compound only)	Pesticides	Herbicide	Sulfonanilide	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain, Liver(Increased organ weight, Hepatocellular hypertrophy), Thyroid(Hypertrophy of follicular cell, Colloid degeneration：Rat)／Increased incidence of hepatocellular adenoma：Rat／Extended gestation period：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy	NOAEL: 1.96 mg/kg bw per day	ADI: 0.019 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20141021267&fileId=501	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20141021267&fileId=201	2015/5/12	—
407	Triazophos	24017-47-8	Agricultural and livestock products：Triazophos(Parent compound only)	Pesticides	Insecticide	Organophosphorus	Inhibition of acetylcholinesterase activity	Negative	Inhibition of ChE activity(more than 20%)	Oral(unspecified)	Repeated-dose toxicity study	3 weeks	Human	Diarrhea, Vomiting, Gastrointestinal disorder	LOAEL: 0.0125 mg/kg bw per day	ADI: 0.00041 mg/kg bw	SF:30 interspecies variation:1 interindividual variation:10 LOAEL is used to estimate the ADI:3	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20090209008&fileId=201	2011/2/10	—
408	Tribufos	78-48-8	Agricultural products：Tribufos(Parent compound only)	Pesticides	Plant Growth Regulator	Organophosphorus	Promotion of defoliation	Negative	Inhibition of brain and erythrocyte ChE activity(more than 20%), Blood(Decreased RBC, Hb and Ht), Eye(Cataract, Corneal opacity, Corneal neovascularization, Iritis, Uveitis)／Increased incidence of small bowel adenocarcinoma and hepatic hemangiosarcoma：Male mouse, Increased incidence of bronchiolo and alveolar tumor：Female mouse	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Hyperplasia of small intestinal mucosa	NOAEL: 0.2 mg/kg bw per day	ADI: 0.002 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20080311022&fileId=002	2009/1/15	—
409	Tricyclazole	41814-78-2	・Agricultural and fishery products：Tricyclazole(Parent compound only) ・Livestock products：Tricyclazole, 5-hydroxymethyl-1,2,4-triazolo[3,4-b]benzothiazole	Pesticides	Fungicide	—	Inhibition of melanization	Negative	Suppressed body weight gain, Liver(Increased organ weight)	Oral(gavage)	Developmental toxicity study	0 - 20 days of pregnancy	Rat	Suppressed body weight gain：Maternal, Delayed ossification：Fetus	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	—	—	—	—	—	Not evaluated	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya0100622449c&fileId=02_203	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya0100622449c&fileId=02_201	2014/1/20	—
410	Trifloxystrobin	141517-21-7	Agricultural, livestock and fishery products：Trifloxystrobin(Parent compound only)	Pesticides	Fungicide	Strobilurin	Inhibition of electron transfer system in photosynthesis	Negative	Liver(Hepatocellular hypertrophy)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Increased absolute/relative liver weight	NOAEL: 5 mg/kg bw per day	ADI: 0.05 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20220119014&fileId=210	2022/5/10	—
411	Triflumezopyrim	1263133-33-0	Agricultural and livestock products：Triflumezopyrim(Parent compound only)	Pesticides	Insecticide	mesoionic	Action on the nicotinic acetylcholine receptor, affecting the synapses	Negative	Suppressed body weight gain, Blood(Anemia), Liver(Increased organ weight, Increased T.Chol)／Increased incidence of uterus squamous epithelium carcinoma：Female rat, Increased incidence of hepatocellular adenoma：Male mouse／Reduced blood prolactin level：Female rat, Decreased number of implantation and infant, Tendency for delayed development of reproductive functions：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Female	NOAEL: 3.23 mg/kg bw per day	ADI: 0.032 mg/kg bw	SF:100	(a)(b) Oral(gavage)	(a)Acute neurotoxicity study (b)Developmental toxicity study	(a)(b)Rat	(a)Decreased body weight and feed intake, Hypothermia, Decreased locomotor activity, Decreased total exercise frequency (b)Suppressed body weight gain：Maternal	NOAEL: (a)100 mg/kg bw (b)100 mg/kg bw per day	1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20170215174&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrieveId=kya20170215174&fileId=201	2017/10/3	—

As of March 31st, 2025

ID	Substance	CAS No	Residue definitions(for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Toxicological findings	Data for ADIs								Data for ARfDs							Reports			Remarks
										Point of Deparature						Reference value	SF、UF	Point of Deparature					ARfD	SF	English (Summary/Full)	Japanese	Date of latest evaluation	
										Route	Test	Duration	Species	Endpoint	Value			Route	Test	Species	Endpoint	Value						
412	Triflumizole	68694-11-1	Agricultural, livestock and fishery products：Tetraniliprole(Parent compound only)	Pesticides	Fungicide	Imidazole	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Liver(Hepatocellular hypertrophy, Fatty degeneration, HepatHepatocellular necrosis)／Increased placenta weight：Rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Centrilobular hepatocellular hypertrophy：Female	LOAEL: 4.6 mg/kg bw per day	ADI: 0.015 mg/kg bw	SF:300 interspecies variation:10 interindividual variation:10 LOAEL is used to estimate the ADI:3	Oral(gavage)	Acute neurotoxicity study	Rat	Listless, Muscle weakness of forelimb	NOAEL: 25 mg/kg bw	0.25 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208247&fileId=210	2022/1/19	—
413	Trifluralin	1582-09-8	Agricultural, livestock and fishery products：Trifluralin(Parent compound only)	Pesticides	Herbicide	Dinitroaniline	Inhibition of cell division	Negative	Kidney(Progressive glomerulonephropathy, Renal calculus, Renal pelvic epithelial hyperplasia), Liver(Increased organ weight), Anemia／Increased urinary bladder transitional cell papilloma/carcinoma, renal transitional cell carcinoma and thyroid follicular epithelial cell adenoma：Rat	Oral(capsule)	Chronic toxicity study	1 year	Dog	Decreased RBC and Hb	NOAEL: 2.4 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	—	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20090324010&fileId=201	2012/1/26	—
414	Triflusulfuron-methyl	126535-15-7	Agricultural products：Triflusulfuron-methyl(Parent compound only)	Pesticides	Herbicide	Sulfonylurea	Inhibition of acetolactate synthase(ALS)	Negative	Suppressed body weight gain, Liver(Increased AST, ALT and ALP, Increased absolute/relative weight), Blood(Reduced RBC, Hb and Ht, Increased number of reticulocyte), Testis(Seminiferous tubular atrophy, Decreased absolute/relative weight)／Hyperplasia of testis interstitial cell, Increased testis interstitial cell adenoma：Male rat	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Decreased body weight	NOAEL: 2.44 mg/kg bw per day	ADI: 0.024 mg/kg bw	SF:100	—	—	—	—	—	—	Not evaluated	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20080303005&fileId=002	2009/3/19	—
415	Triforine	26644-46-2	Agricultural and livestock products：Triforine(Parent compound only)	Pesticides	Fungicide	Piperazine	Inhibition of ergosterol biosynthesis	Negative	Suppressed body weight gain, Blood(Anemia)／Increased incidence of bronchiolo and alveolar epithelium adenoma, Increased incidence of total ofbronchiolo and alveolar epithelium adenoma/adenocarcinoma：Female mouse	Oral(feed)	Chronic toxicity study	2 years	Dog	Increased T.Bil	NOAEL: 2.39 mg/kg bw per day	ADI: 0.023 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Decreased body weight, Suppressed body weight gain：Maternal	NOAEL: 150 mg/kg bw per day	1.5 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20180418016&fileId=210	2018/5/22	—
416	Trinexapac-ethyl	95266-40-3	Agricultural and livestock products：Trinexapac-ethyl, 4-(cyclopropyl-α-hydroxymethylene)-3,5-dioxocyclohexane-1-carboxylic acid	Pesticides	Plant Growth Regulator	Cyclohexanedione	Inhibition of gibberellin biosynthesis	Negative	Suppressed body weight gain, Kidney(Pigment deposition of tubular epithelium：Rat)	Oral(feed)	Two-generation reproductive activity study	—	Rat	Suppressed body weight gain：Male parent	NOAEL: 0.59 mg/kg bw per day	ADI: 0.0059 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rabbit	Suppressed body weight gain：Maternal, Increased postimplantation loss rate, Decreased number of viable fetus：Fetus	NOAEL: 60 mg/kg bw per day	0.6 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208246&fileId=210	2022/5/10	—
417_1	Uniconazole P	83657-17-4	Agricultural products：Uniconazole P, (E)-(R)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1H-1,2,4-triazol-1-yl)pent-1-en-3-ol	Pesticides	Plant Growth Regulator	Triazole	Inhibition of gibberellin biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weights, Hepatocellular hypertrophy：Rat, Mouse and Dog, hepatocellular vacuolation, Hepatocellular single cell necrosis：Rat and Mouse)	Oral(gavage)	Chronic toxicity study	1 year	Dog	Increased ALP	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	Oral(gavage)	Acute toxicity study	Rat	Decreased motor activity, Ataxic gait, Tetraplegia, Loss of righting reflex, Irregular respiration, hepatocellular vacuolation：Male, Decreased motor activity, Ataxic gait, Tetraplegia, Loss of righting reflex, Irregular respiration：Female	NOAEL: 100 mg/kg bw	1 mg/kg bw (for general population)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201111138&fileId=213	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201111138&fileId=210	2021/5/25	—
417_2	Uniconazole P	83657-17-4	Agricultural products：Uniconazole P, (E)-(R)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1H-1,2,4-triazol-1-yl)pent-1-en-3-ol	Pesticides	Plant Growth Regulator	Triazole	Inhibition of gibberellin biosynthesis	Negative	Suppressed body weight gain, Liver(Increased organ weights, Hepatocellular hypertrophy：Rat, Mouse and Dog, hepatocellular vacuolation, Hepatocellular single cell necrosis：Rat and Mouse)	Oral(gavage)	Chronic toxicity study	1 year	Dog	Increased ALP	NOAEL: 2 mg/kg bw per day	ADI: 0.02 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Increased incidence of 14 ribs：Fetus	NOAEL: 5 mg/kg bw per day	0.05 mg/kg bw (for women of childbearing age)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201111138&fileId=213	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20201111138&fileId=210	2021/5/25	—
418	Validamycin (Validamycin A)	37248-47-8	Agricultural products：Validamycin(Parent compound only)	Pesticides	Fungicide	Glycoside	Inhibition of trehalase	Negative	Suppressed body weight gain：Rat, GI tract (Diarrhea, Soft feces)／Skeletal and external anomaly：Rabbit(Fetus)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain：Male	NOAEL: 36.8 mg/kg bw per day (converted into validamycin A)	ADI: 0.36 mg/kg bw (converted into validamycin A)	SF:100	Oral(capsule)	Subacute toxicity study	Dog	Soft feces	NOAEL: 327 mg/kg bw per day (converted into validamycin A)	3.2 mg/kg bw (converted into validamycin A)	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20160323546&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220713114&fileId=210	2022/8/31	The English report is the first edition published on September 29, 2020
419	Zoxamide	156052-68-5	Agricultural products：Zoxamide(Parent compound only)	Pesticides	Fungicide	Benzamide	Inhibition of cell division	Negative	Suppressed body weight gain, Liver(Increased organ weight, Diffuse hepatocellular hypertrophy)：Dog	Oral(feed)	Chronic toxicity study	1 year	Dog	Suppressed body weight gain：Female	NOAEL: 47.5 mg/kg bw per day	ADI: 0.47 mg/kg bw	SF:100	—	—	—	—	FSCJ concluded that it was not necessary to establish an ARfD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20220119013&fileId=210	2022/5/26	—
420	1-methylcyclopropene	3100-04-7	Agricultural products：1-methylcyclopropen(Parent compound only)	Pesticides	Plant Growth Regulator	—	Inhibition of ethylene activity	Negative	Suppressed body weight gain, Decreased number of erythrocyte, Increased hemosiderin deposition：Liver and Spleen	—	—	—	—	—	—	Can not be set	—	—	—	—	—	—	Can not be set	—	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20181121127&fileId=211	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20230308030&fileId=210	2023/5/17	The English report is the second edition published on September 1, 2020. FSCJ determined that ADI and ARfD from oral exposure could not be established because the pesticide is a gas. However, FSCJ considered that as long as pesticides are used appropriately, the likelihood of their affecting human health through food products is very low.
421	1-naphthaleneacetic acid, sodium salt	61-31-4	Agricultural products：1-naphthaleneacetic acid, sodium salt1-naphthaleneacetic acid(including conjugated form and sodium salt)	Pesticides	Plant Growth Regulator	—	Auxin-like effect	Negative	Stomach(Epithelial necrosis of mucosa：Dog), Liver(Periportal hepatocellular vacuolation), Testis(Seminiferous tubular degeneration)	Oral(capsule)	Chronic toxicity study	1 year	Dog	Epithelial necrosis of gastric mucosa：Male	NOAEL: 15 mg/kg bw per day	ADI: 0.15 mg/kg bw	SF:100	Oral(gavage)	Developmental toxicity study	Rat	Low body weight：Maternal	NOAEL: 15 mg/kg bw per day	0.15 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20210519110&fileId=211	2021/5/19	—
422	1,3-dichloropropene	542-75-6	Agricultural products：1,3-dichloropropene(Parent compound only)	Pesticides	Insecticide (Nematicide)	—	Inhibition of enzyme activity by binding to the nucleophilic reactive group of the enzyme.	Negative	Stomach(Squamous epithelial hyperkeratosis/hyperplasia：Forestomach), Urinary bladder(Hyperplasia of transitional epithelium), Blood(Anemia)／Increased incidence of hepatocellular adenomas and squamous epithelial papilloma of forestomach：Rat, Increased incidence of bronchiolo-alveolar adenoma, squamous epithelial papilloma of forestomach and transitional epithelial carcinoma of urinary bladder：Mouse	Oral(gavage)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Suppressed body weight gain, Decreased TG, Forestomach basal cell hyperplasia	NOAEL: 2.5 mg/kg bw per day	ADI: 0.025 mg/kg bw	SF:100	Oral(gavage)	Subacute toxicity study	Dog	Increased incidence of Vomiting	NOAEL: 20 mg/kg bw per day	0.2 mg/kg bw	SF:100	—	https://www.fsc.go.jp/fsciis/evaluationDocument/show/kya20221214226	2024/3/7	—
423	1,4-dimethylnaphthalene	571-58-4	Agricultural products：1,4-dimethylnaphthalene, 1-hydroxymethyl-4-methylnaphthalene(including conjugated form)	Pesticides	Plant Growth Regulator	Alkyl naphthalene	—	Negative	Suppressed body weight gain, Kidney(Increased organ weight, Karyomegaly in tubular epithelium：Rat), Liver(Increased organ weight, Increased T.Chol：Rat)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Increased T.Chol, Karyomegaly in renal tubular epithelium：Female	NOAEL: 10 mg/kg bw per day	ADI: 0.1 mg/kg bw	SF:100	—	—	—	—	NOAEL: Exceed cut-off value (500 mg/kg bw per day) for setting ARfD	Not Applicable	—	—	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20211208244&fileId=210	2023/5/9	—
424	2,4-D	94-75-7	・Agricultural products：2,4-D, 2,4-dichlorophenol ・Livestock products：2,4-D(Parent compound only)	Pesticides	Herbicide	Phenoxy	Promotion of auxin action	Negative	Suppressed body weight gain, Kidney(Tubular epithelium degeneration), Liver(Hepatocellular hypertrophy), Testis(Decreased organ weight), Eye(Retinopathy：Rat)	Oral(feed)	Combined chronic toxicity/carcinogenicity study	2 years	Rat	Pigment deposition of renal tubule	NOAEL: 0.99 mg/kg bw per day	ADI: 0.0099 mg/kg bw	SF:100	Oral(gavage)	Acute neurotoxicity study	Rat	Abnormal gait：Female	NOAEL: 15 mg/kg bw	0.15 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612152&fileId=202	https://www.fsc.go.jp/fsciis/attachedFile/download?retrievalId=kya20130612152&fileId=201	2017/5/16	—

※1：as a group of Azocyclotin and Cyhexatin
※2：as a group of Cartap hydrochloride, Thiocyclam hydrogen oxalate and Bensultap
※3：as a group of Dazomet, Metam and Methyl isothiocyanate
※4：as a group of Deltamethrin and Tralomethrin
※5：as a group of Quizalofop ethyl and Quizalofop P tefuryl
※6：evaluated as Iminoctadine