

Substance	CAS No	Residue definitions (for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Data for setting ADI							Data for setting ARD					Reports			Remarks					
								Toxicological findings	Point of Departure					Reference value	SF	Point of Departure					ARD	SF		English	Japanese	Date of latest evaluation		
									Route	Test	Duration	Species	Endpoint			Value	Route	Test	Species	Endpoint							Value	
1	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	hyperplasia/hyperkeratosis of forestomach squamous epithelium	NOAEL: 2 mg/kg bw per day	ADI: 0.02 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	—	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20190905055&amp;fileId=210">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20190905055&amp;fileId=210</a>	2019/10/15	
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	—	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20160209496&amp;fileId=202">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20160209496&amp;fileId=202</a>	2016/12/13	
3	Acetamiprid	135410-20-7	· Agricultural products : Acetamiprid (Parent compound only) · Livestock products : Acetamiprid , N <sup>1</sup> -[(6-chloro-3-pyridyl)methyl]-N <sup>2</sup> -cyanoacetamide	Pesticides	Insecticide	Neonicotinoid	Acting 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	—	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20140702188&amp;fileId=201">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20140702188&amp;fileId=201</a>	2014/12/16	
4	Benfuracarb	82560-54-1	· Agricultural products : Benfuracarb, Carbofuran and 3-hydroxy-carbofuran (including conjugated form) · Fishery products : Benfuracarb and Carbofuran	Pesticides	Insecticide	Carbamate	Inhibition of acetylcholinesterase activity.	Negative	Inhibition of erythrocyte and brain ChE activity(more than 20%), Suppressed body weight gain / Decrease in survival 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 <a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210006&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210006&amp;fileId=211</a>	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210006&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210006&amp;fileId=211</a>	2020/2/4	For Carbofuran, the ADI and ARD was set at 0.00015 mg/kg bw.
5	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 weights, Hepatocellular hypertrophy), Thyroid(Increased organ weights, 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	Oral (capsule)	Subacute toxicity study	Dog	Sedation and Slight ataxic gait	NOAEL: 50 mg/kg bw per day	0.5 mg/kg bw	SF:100	—	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20190319052&amp;fileId=210">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20190319052&amp;fileId=210</a>	2019/6/18	
6	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 epithelium : 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, 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 <a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20120918650&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20120918650&amp;fileId=211</a>	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20120918650&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20120918650&amp;fileId=211</a>	2018/9/4	
7	Carbofuran	1563-66-2	Agricultural and livestock products : Carbofuran and 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 the 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 postnatal days)	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 : Maternal, Inhibition of whole blood AChE activity : 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 <a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20090209005&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20090209005&amp;fileId=211</a>	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20090209005&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20090209005&amp;fileId=211</a>	2020/2/4	
8	Carbosulfan	55285-14-8	· Agricultural and livestock products : Carbosulfan, Carbofuran and 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, Decrease in survival rate at four postnatal days : 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 <a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210005&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210005&amp;fileId=211</a>	<a href="https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210005&amp;fileId=211">https://www.fsc.go.jp/fscis/attachdFile/download?retrievalId=kya20110210005&amp;fileId=211</a>	2020/2/4	

	Substance	CAS No	Residue definitions (for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Data for setting ADI						Data for setting ARD					Reports			Remarks												
									Toxicological findings	Point of Departure					Reference value	SF	Point of Departure					ARD		SF	English	Japanese	Date of latest evaluation								
										Route	Test	Duration	Species	Endpoint			Value	Route	Test	Species	Endpoint							Value							
9	Cartap hydrochloride, Thiocyclam hydrogen oxalate, Bensultap 第1	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/oxidation 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 group ADI for Cartap hydrochloride, Thiocyclam hydrogen oxalate, Bensultap)	SF:100	Oral (gavage)	Acute neurotoxicity study	Rat	Decreased length of hindlimb's stride : Female	NOAEL: 10 mg/kg bw (as Cartap hydrochloride)	0.1 mg/kg bw (as group ARD for Cartap hydrochloride, Thiocyclam hydrogen oxalate, Bensultap)	SF:100	Summary https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	2019/6/4								
9-1	Bensultap第1	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 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	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/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	2019/6/4	Evaluated as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate. Please see #9.	
9-2	Cartap hydrochloride 第1	15263-52-2	Agricultural products : Cartap hydrochloride, Cartap, Nereistoxin(including metabolites that are composed to Nereistoxin by hydrolysis/oxidation 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	Oral (gavage)	Acute neurotoxicity study	Rat	Decreased length of hindlimb's stride : Female	NOAEL: 10 mg/kg bw							0.1 mg/kg bw	SF:100	Summary https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	2019/6/4	Evaluated as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate. Please see #9.	
9-3	Thiocyclam hydrogen oxalate 第1	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/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181210142&fileId=211	2019/6/4	Evaluated as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate. Please see #9.							
10	Chlorantraniliprole	500008-45-7	Agricultural, livestock and fishery products : Chlorantraniliprole (Parent compound only)	Pesticides	Insecticide	Anthranilic acid amide	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	—	—	—	—	—	FSCI concluded that it was not necessary to establish an ARD, in view of the absence of adverse effect that would be elicited by a single oral dose.	Not Applicable	—	—	—	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20181114140&fileId=201	2017/4/18						
11	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), 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/fscis/attachedFile/download?retrieveId=kya20170615051&fileId=211	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20201111140&fileId=210	2021/1/12	The English report is the first edition published on December 25, 2014							
12	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%)	Oral (feed)	Combined chronic toxicity / carcinogenicity study	2 years	Rat	Inhibition of erythrocyte ChE activity(more than 20%) : Male, Inhibition of brain ChE activity(more than 20%) : Female	NOAEL: 0.1 mg/kg bw per day	ADI: 0.001 mg/kg bw	SF:100	Oral (feed)	Two-generation reproductive activity study	—	Rat	Inhibition of erythrocyte ChE activity(more than 20%) : Parent	NOAEL: 0.1 mg/kg bw per day	0.1 mg/kg bw	SF:10	—	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20170721083&fileId=210	2018/7/24							
13	Clothianidin	210880-92-5	Agricultural and livestock products : Clothianidin (Parent compound only)	Pesticides	Insecticide	Neonicotinoid	Acting 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/fscis/attachedFile/download?retrieveId=kya20140407127&fileId=201	2014/10/7								
14	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/fscis/attachedFile/download?retrieveId=kya20170315209&fileId=202	https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20170315209&fileId=201	2017/10/17								



Substance	CAS No	Residue definitions (for estimation of dietary intake)	Category	Use	Chemical Class	Mechanism of Action	Genotoxicity	Data for setting ADI						Data for setting ARD						Reports			Remarks					
								Toxicological findings	Point of Departure					Reference value	SF	Point of Departure					ARD	SF		English	Japanese	Date of latest evaluation		
									Route	Test	Duration	Species	Endpoint			Value	Route	Test	Species	Endpoint							Value	
22	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 zone 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/fscis/attachedFile/download?retrieveId=kya2022-211	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2022-0323041&amp;fileId=210">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2022-0323041&amp;fileId=210</a>	2022/5/18	The English report is the first edition published on December 15, 2020
23	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	Increase in 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	—	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-0805415&amp;fileId=201">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-0805415&amp;fileId=201</a>	2015/12/22	
24	Imidacloprid	138261-41-3	Agricultural products : Imidacloprid (Parent compound only) Livestock products : Imidacloprid, Metabolites containing 6-chloropyridyl groups	Pesticides	Insecticide	Neonicotinoid	Acting 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	Oral (gavage)	Pharmacological study	Mouse	Reduced alertness and motor activity, Ataxia	NOAEL: 10 mg/kg bw	0.1 mg/kg bw	SF:100	—	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-1117469&amp;fileId=201">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-1117469&amp;fileId=201</a>	2016/7/12	
25	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%)	Oral (feed)	Chronic toxicity study	2 years	Dog	Inhibition of erythrocyte ChE activity (more than 20%)	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/fscis/attachedFile/download?retrieveId=kya20110613080&fileId=202	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20110613080&amp;fileId=202">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20110613080&amp;fileId=202</a>	2016/2/23	
26	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/fscis/attachedFile/download?retrieveId=kya20110425002&fileId=202	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20110425002&amp;fileId=202">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20110425002&amp;fileId=202</a>	2014/5/13	
27	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%) / Reduction in the 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	—	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-0209501&amp;fileId=201">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-0209501&amp;fileId=201</a>	2016/12/13	
28	Prothiofos	34643-46-4	Agricultural 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 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/fscis/attachedFile/download?retrieveId=kya20130612178&fileId=211	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20130612178&amp;fileId=211">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20130612178&amp;fileId=211</a>	2018/10/23	
29	Thiamethoxam	153719-23-4	Agricultural and livestock products : Thiamethoxam (Parent compound only)	Pesticides	Insecticide	Neonicotinoid	Acting as an agonist at the nicotinic acetylcholine receptor, affecting the synapses.	Negative	Kidney (hyaline droplet accumulation in renal tubule), Liver (inflammatory cell infiltration, hepatocellular hypertrophy) / Increase in hepatocellular adenomas and carcinomas : 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	—	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-0113250&amp;fileId=201">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya2015-0113250&amp;fileId=201</a>	2015/7/28	
30	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/fscis/attachedFile/download?retrieveId=kya20200728097&fileId=211	<a href="https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20200728097&amp;fileId=211">https://www.fsc.go.jp/fscis/attachedFile/download?retrieveId=kya20200728097&amp;fileId=211</a>	2020/11/24	

※ 1 : as a group of Bensultap, Cartap hydrochloride and Thiocyclam hydrogen oxalate

※ 2 : as a group for Dazomet, Metam and Methyl isothiocyanate