

Fatal and non-fatal accidents in fuel retail in Japan in 1999-2022

fuel retail industry Code No.080204

Type of accidents in fuel retail in 1999-2022

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
fall from height	125	111	124	148	150	142	146	105	124	128	102	97	118	99	109	113	110	101	130	130	136	114	132	110	2,904
falling to same level	176	151	170	173	167	168	155	145	145	135	135	112	155	158	140	133	121	129	145	167	139	132	163	175	3,589
crash	43	41	41	34	44	33	33	34	28	32	22	21	23	22	30	21	29	35	21	29	31	30	30	33	740
struck by flying or falling object	54	31	48	17	37	25	25	23	17	26	21	23	19	11	21	16	16	16	12	12	20	11	23	10	534
collapse	8	10	18	10	9	9	12	14	12	5	8	6	6	4	6	3	4	10	2	7	6	7	4	6	186
crashed by	31	31	25	20	26	32	27	28	28	26	17	18	23	19	16	12	10	19	13	15	18	11	17	9	491
caught in/between	101	77	115	75	67	73	69	53	72	45	51	44	47	50	42	42	50	39	31	44	41	39	33	35	1,335
cut	21	17	19	11	16	14	13	18	8	10	7	4	10	7	4	7	6	12	6	2	12	8	5	5	242
injury to the sole of the foot	3	2	1	2	1	3		1			1	1	1		1		1		1	2			1	2	24
drown											1		18									1		1	21
contact to high/low-	24	16	21	25	15	13	14	9	10	9	10	5	3	14	4	8	7	4	7	13	8	10	11	6	266

temperature																									
contact to harmful substance	3	6	4	2		4	3	2	2	1		1	4	2		1		1	1	3		2	2	1	45
electric shock												1	1		1		1	1							5
explosion	1	2	1	2			3			1				1		1									12
burst	6	8	6	7	3	9	5	4	7	8	3	3	2	5	5	2	1	5	2		2	5	1	2	101
fire	1	2		2	1	3	1	2	4	2		2	2		2	1		1	1	2			2	2	33
traffic accident (public road)	66	57	57	62	61	57	49	42	49	35	36	41	35	43	29	39	37	26	31	31	30	18	28	25	984
traffic accident (others)	4		1	3	1		1	1		1	3		1	2		1	1	2	1	1	1	3	1		29
reaction to motion/improper motion	88	78	70	88	67	49	66	58	71	65	43	61	75	73	62	77	46	59	68	81	60	71	87	73	1,636
others	3	7	12	3	7	4	5	7	5	9	3	2	12	2	3	1	6	2	3	3	3	5	16	4	127
unclassifiable	2	3	3	4	1	3	1	2	2	4	3	1	2	1	1				1	2	2	2			40
total	760	650	736	688	673	641	628	548	584	542	466	443	557	513	476	478	446	462	476	544	509	469	556	499	13,344

Causal agents (large) of fatal and non-fatal accidents in fuel retail in 1999-2022

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
machine	35	37	50	30	26	28	28	22	36	22	23	20	18	19	23	21	16	25	21	15	17	15	20	21	588

construction machine	11	6	17	13	10	10	11	6	12	11	8	7	7	6	8	9	5	10	8	6	9	9	8	11	218
metal manufacturing machine	3	6	5	5	2	5	3	3	2	2	4	2	2		3	2	3	3	4	2	3		2	1	67
general machine	14	16	19	8	9	6	12	10	16	6	9	9	6	9	7	5	7	8	6	5	3	6	7	8	211
mobile silviculture machine																								1	1
crane	5	6	10	7	4	10	9	5	7	7	7	1	2	4	4	2	6	3	3	5	5	3	4	6	125
conveying machine	113	75	87	80	83	67	72	69	72	54	52	46	51	61	43	52	56	56	58	53	64	58	56	62	1,540
vehicle	132	99	100	108	101	110	97	63	72	67	72	70	64	62	56	55	57	46	41	50	47	34	44	34	1,681
pressure vessel	12	11	15	7	7	4	6	6	10	4	3	5	4	7	6	6	6	8	6	3	4	2	9	2	153
chemical facilities			1			3	2	1							1	2	1		1					1	13
welding equipment	1			1				2		2					1			1					1		9
kiln, caldron	2				1					1															4
electric equipment	2	2			1	1			1	1	1	1				2				2	2		1	1	18
human power machine, tools	20	20	32	18	23	18	21	14	9	11	6	4	12	6	10	16	12	6	6	6	12	11	9	6	308
tools	43	49	53	61	47	59	54	52	48	69	55	47	53	49	53	50	52	65	57	64	64	64	80	41	1,329
other equipments,	28	30	17	21	20	25	14	21	35	26	15	15	17	21	22	22	17	14	19	22	24	13	24	13	495

facilities																										
temporary buildings, establishments	196	174	194	206	211	195	181	172	167	154	157	141	188	169	156	129	147	145	156	196	183	157	176	190	4,140	
hazards, harmful substances	15	14	16	11	11	10	11	8	8	3	1	3	7	5	1	5	1	2	6	8	1	7	6	7	167	
materials	16	15	25	17	21	21	20	15	11	14	8	14	10	10	7	10	6	9	7	6	5	9	10	6	292	
load	66	50	61	47	56	39	48	38	44	40	23	38	31	29	25	29	19	27	24	32	29	29	42	24	890	
natural environment	25	21	35	20	23	18	25	27	20	25	17	17	50	23	33	35	21	27	32	43	26	28	26	50	667	
other causal agent	11	14	12	10	14	10	13	7	8	12	5	1	10	10	11	10	4	6	7	10	4	7	18	7	221	
no causal agent	38	30	26	37	24	20	25	24	32	29	19	19	37	36	22	31	25	22	32	27	21	31	30	28	665	
unclassifiable		3	2	7		3	2	2	4	1	2	1	3	2	2	1				2	1	1			39	
total	760	650	736	688	673	641	628	548	584	542	466	443	557	513	476	478	446	462	476	544	509	469	556	499	13,344	

Causal agents (small) of fatal and non-fatal accidents in fuel retail in 1999-2022

Causal (S) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
engine			2						1					1				1	1				1		7
power transmission mechanism			4		4		1	3	2	2	1	2	2	1	4	2	1	3	1	1	1				35
circular sawing			1		1		1		2	1	1		1	2	1						1		1		13

machine																										
band sawing machine																										
wood planer machine																										
hollow chisel mortiser, wood borer																										
chamfering machine, router, woodworking milling machine																										
chain saw			2						1							1								1		5
other woodworking machines																2				1	1					4
leveling, transporting or loading machine			6		4		2	3	5	5	1	3	2	2	2	2	1	5	3	1	3	2	1	5	58	
excavating machine			8		3		6	3	6	4	4	3	5	4	5	6	4	4	3	5	6	7	7	5	98	
foundation work machine							1					1							1						3	
hardening machine			1							1	1														3	
demolition machine			1		2		1												1						5	

lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane						2	2	1	1	1	1	1	1			1		1		1	2	1		16	
truck			81		75		67	61	64	50	48	41	47	56	42	48	52	47	53	49	60	53	52	59	1,105
forklift			3		5		1	4	5	1	2	5	1	1	1	2	2	4		1	1	1	1		41
railway equipment																									
conveyor					1		1	1	2	1	2		2			1	1		1	1	2	1			17
loader					1			1										1				1		1	5
straddle carrier								1																	1
rough terrain hauler										1								1							2
other powered conveying machines			3		1		3	1	1	1			1	4		1	1	3	4	2	1	2	3	2	34
cars, bus, motorcycle			98		95		93	61	68	66	69	67	63	60	53	51	55	45	39	47	44	33	42	34	1,183
railway vehicle																									
other vehicles			2		6		4	2	4	1	3	3	1	2	3	4	2	1	2	3	3	1	2		49
boiler																									
pressure vessel			2							1				1		1		1	1						7

other pressure vessels			13		7		6	6	10	3	3	5	4	6	6	5	6	7	5	3	4	2	9	2	112	
chemical facilities			1				2	1							1	2	1		1					1	10	
gas welding equipment								2										1					1		4	
arc welding equipment															1										1	
other welding equipment										2															2	
kiln, caldron					1					1															2	
industrial dryer																										
other kiln, caldron																										
transmission																										
electric power facilities												1											1		2	
other electrical equipment					1				1	1	1					2					2	1		1	1	11
human power cranes			4		2		4	4	2				1	2	1	1		1	1		1	1	1		26	
human power hauling equipment			9		6		4	4	4	3	2	1	5	4	5	7	6	2	2	4	3	7	3	3	84	
human power			3		1		1		1		1	1			1		1		1	1	2		1	1	16	

machine																									
hand tool			16		14		12	6	2	8	3	2	6		3	8	5	3	2	1	6	3	4	2	106
ladder			37		39		42	36	38	50	36	37	41	31	40	39	38	46	42	54	51	51	61	27	836
slinging tool											1		1				2	1							5
other tools			16		8		12	16	10	19	18	10	11	18	13	11	12	18	15	10	13	13	19	14	276
other equipment, facilities			17		20		14	21	35	26	15	15	17	21	22	22	17	14	19	22	24	13	24	13	391
scaffolding			1		2		2	2	1	1						1	1	1		1	1	1		1	16
timbering																									
stairs, landing stage			15		26		23	23	16	23	17	15	16	15	20	8	16	10	23	22	21	19	18	20	366
opening			5		2		6	1	6	2	4	4	4	2	4	8	5	1	7	3	1	3	4	1	73
roof, beam, haze, crossbeam, principal rafter			2		4		3	2	2	3		3	5	3	3	3		4	3	4	3	1	1	2	51
working platform, boot board			42		39		30	29	27	28	24	20	28	21	25	16	13	16	21	20	25	16	20	25	485
passage			69		66		68	69	62	47	60	57	79	87	71	49	63	69	69	84	86	65	82	80	1,382
building, establishment			44		43		30	30	38	28	40	29	37	28	22	32	28	30	23	49	29	32	32	40	664
other temporary buildings, establishments			16		29		19	16	15	22	12	13	19	13	11	12	21	14	10	13	17	20	19	21	332

high/cold temperature environment			4		3		2	3	2	3	2	3	3	4	4	2	3		1	6	4	4	7	4	64
other environments			23		14		15	22	12	19	14	12	19	16	23	31	13	23	28	34	18	19	19	45	419
other causal agent			12		14		13	7	8	12	5	1	10	10	11	10	4	6	7	10	4	7	18	7	176
no causal agent			26		24		25	24	32	29	19	19	37	36	22	31	25	22	32	27	21	31	30	28	540
unclassifiable			2				2	2	4	1	2	1	3	2	2	1				2	1	1			26
total	760	650	736	688	673	641	628	548	584	542	466	443	557	513	476	478	446	462	476	544	509	469	556	499	13,344

Workers age of fatal and non-fatal accidents in fuel retail in 1999-2022

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
19 years old or less	60	46	44	56	49	34	35	24	38	24	21	14	16	16	10	13	13	18	11	18	11	14	12	12	609
20-29	243	211	237	197	207	192	178	142	117	106	108	88	88	103	96	85	59	69	62	62	65	56	70	38	2,879
30-39	145	115	160	125	124	128	145	117	136	126	106	108	132	115	96	107	93	85	75	94	82	60	74	65	2,613
40-49	133	116	122	123	114	111	97	94	111	86	74	66	114	108	104	107	111	113	91	118	112	103	126	102	2,556
50-59	140	128	139	129	131	127	134	105	116	123	95	95	115	96	92	95	88	98	107	126	124	120	130	145	2,798
60 years old or more	39	34	34	58	48	49	39	66	66	77	62	72	92	75	78	71	82	79	130	126	115	116	144	137	1,889
total	760	650	736	688	673	641	628	548	584	542	466	443	557	513	476	478	446	462	476	544	509	469	556	499	13,344

Workers' number of workplace of fatal and non-fatal accidents in fuel retail in 1999-2022

Chiba	28	26	27		23		10	16	22	20	16	14	19	16	18	19	15	15	22	13	15	12	24	18	408
Tokyo	24	27	34		30		21	19	18	25	13	17	24	21	16	19	22	18	18	19	22	9	21	15	452
Kanagawa	54	41	35		22		33	37	22	33	22	29	28	32	17	13	19	21	25	23	21	23	23	21	594
Niigata	15	12	13		11		14	11	22	14	14	12	18	9	13	11	15	10	17	15	14	6	14	11	291
Toyama	6	11	10		5		5	6	1	7	10	3	6	9	10	2	6	4	3	2	8	8	4	6	132
Ishikawa	12	1	2		6		6	7	7	8	9	6	4		8	9	8	3	8	7	9	6	9	2	137
Fukui	3	3	14		5		3	5	2	4	7	3	6	8	1	4	4	6	3	5	6	4	2	4	102
Yamanashi	1	1	4		2		3	3	6	4	2	1	3	3	1	3	2	5	7	6	8	2	3	2	72
Nagano	14	10	12		15		18	16	21	14	12	15	14	10	12	13	13	15	10	15	15	19	28	25	336
Gifu	18	10	22		15		18	16	12	13	7	12	12	9	9	15	9	9	14	12	10	10	13	8	273
Shizuoka	20	17	10		20		18	11	26	18	13	8	16	16	18	16	12	19	13	26	22	18	18	22	377
Aichi	33	37	27		18		27	25	28	23	26	24	18	29	21	26	19	22	18	28	23	33	22	19	546
Mie	20	17	20		12		9	14	18	9	8	6	13	12	7	7	8	7	10	5	6	10	11	16	245
Shiga	3	7	12		6		8	8	6	4	8	5	5	8	5	8	7	6	2	3	2	4	2	4	123
Kyoto	11	13	14		7		9	8	3	9	8	14	12	11	8	6	13	6	7	8	7	6	9	7	196
Osaka	30	18	32		19		23	15	24	20	8	17	8	11	7	17	10	13	10	20	12	12	16	21	363
Hyogo	19	31	37		35		21	21	26	18	9	16	17	16	10	14	15	10	15	16	14	4	10	15	389
Nara	8	7	5		4		8	2	5	7	3	3	1	7	3	2	1	6	4	5	3	4	3	1	92
Wakayama	9	6	9		11		8	6	8	7	8		6	3	2	7	2	3	3	5	3	1	5	3	115
Tottori	7	4	7		4		5	1	4	4	1	3	2	3	6	5	6	3	5	1	7	4	2		84
Shimane	8	7	12		7		4	2	6	1	3	3	5	4	10	3	4		7	6	5	9	8	7	121

Okayama	15	12	12		7		11	14	8	11	7	10	14	6	17	7	10	8	7	15	9	11	10	16	237
Hiroshima	30	21	30		24		24	10	22	11	20	10	20	15	17	10	11	8	17	20	20	11	14	8	373
Yamaguchi	14	7	19		15		11	15	3	4	8	5	7	5	7	2	8	8	5	12	6	7	11	8	187
Tokushima	5	3	3		3		5	1	5	4	1		2	5	3	2	3	2		4	2	1	5	5	64
Kagawa	13	12	10		13		9	4	5	8	10	6	11	8	8	4	5	6	3	2	3	4	4	8	156
Ehime	10	12	9		21		11	6	9	9	9	6	11	8	11	7	5	5	7	11	9	7	11	5	199
Kochi	8	8	7		11		6	5	3	3	3	2	4	3	1	2	2	6	3	3	4	2	3		89
Fukuoka	35	37	40		35		31	25	18	18	22	19	19	21	21	22	19	15	21	19	16	22	30	24	529
Saga	13	6	6		8		5	4	11	8	5	5	7	8	5	2	6	8	10	4	10	7	7	2	147
Nagasaki	7	8	10		12		8	5	6	6	5	3	5	6	8	6	3	3	1	10	3	11	9	1	136
Kumamoto	12	8	12		8		12	5	5	6	7	6	10	2	4	5	3	13	11	6	3	7	5	7	157
Oita	13	12	8		9		7	9	14	8	2	8	4	7	4	7	6	5	7	6	7	5	10	8	166
Miyazaki	8	9	8		10		6	6	10	5	10	4	3	4	3	6	8	8	9	6	7	3	6	9	148
Kagoshima	10	9	11		18		18	13	10	15	12	11	12	9	15	15	10	5	10	14	4	6	12	11	250
Okinawa	3	6	5		6		6	8	8	9	6	3	1	6	11	7		5	3	5	5	3	5	2	113
total	760	650	736	688	673	641	628	548	584	542	466	443	557	513	476	478	446	462	476	544	509	469	556	499	13,344

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more.

Data of 2022 year do not include Covid-19 cases. Data of 2020 & 2021 year include Covid-19 cases. Fatal and non-fatal data are same situation.

Data of 2011 year include fatal and non-fatal accidents caused by Great East Japan Earthquake in 2011.

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.html> (MHLW, Japan)

20-29	1	3	5				3	4	2		2	2	1	1	1										25
30-39		3	2	2		1	2		2				10					1							23
40-49	3	2	1		1	1		1	1		2		10		2	1		1		1				27	
50-59	2	2	3	2	1	1	5	3		1	3	2	5			3	2	1	2	1	2	1	2	3	47
60 years old or more			3				1	1		2		2	5				1	1	2	3	2	4		27	
total	11	11	17	5	2	3	12	9	5	3	7	6	32	1	3	4	3	4	4	5	4	5	2	3	161

Workers' number of workplace of fatal accidents in fuel retail in 1999-2022

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
9 workers or less	4	7	7	3	1	1	8	7	2	2	6	4	22	1	1	4	1	4	2	3	4	4	1	1	100
10-29	5	3	7	2	1	1	4	1	3	1	1	1	6		2		1		1	2		1		2	45
30-49	1	1	2			1		1					1				1		1				1		10
50-99	1		1																						2
100-299												1	3												4
300 workers or more																									
total	11	11	17	5	2	3	12	9	5	3	7	6	32	1	3	4	3	4	4	5	4	5	2	3	161

Month of fatal accidents in fuel retail in 1999-2022

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	total
January	2	2	3				2		2		2							1			1		1		16

total	11	11	17	5	2	3	12	9	5	3	7	6	32	1	3	4	3	4	4	5	4	5	2	3	161
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Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.html> (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2022e_industry.html