

## Fatal and non-fatal accidents in cleaning in Japan in 1999-2022

cleaning industry Code No.011703

### Type of accidents in cleaning 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	54	38	54	50	60	64	62	59	60	68	56	55	55	59	67	60	58	61	67	69	71	63	84	76	1,470
falling to same level	109	104	119	122	124	127	131	136	140	145	149	154	160	134	143	157	176	164	178	206	184	203	187	187	3,639
crash	32	19	26	24	26	30	28	36	35	26	20	27	23	34	37	30	33	38	38	30	33	39	29	41	734
struck by flying or falling object	15	12	20	14	13	15	19	17	16	17	18	14	16	14	12	3	6	16	17	10	11	9	11	10	325
collapse	4	7	5	4	6	6	5	2	5	5	3	3	3	5	5	3	9	4	4	6	6	6	5	4	115
crashed by	13	14	12	16	20	19	14	24	15	16	14	12	9	17	22	16	16	16	24	25	22	17	19	17	409
caught in/between	147	129	139	131	123	124	119	127	126	112	92	116	99	96	89	86	82	104	91	98	101	87	74	70	2,562
cut	13	19	15	12	11	14	13	16	20	14	11	11	10	13	7	5	11	9	7	9	12	16	7	11	286
injury to the sole of the foot			2			1														1			1		5
drown																									
contact to high/low-	39	37	48	41	36	34	27	32	37	34	31	29	33	20	33	32	41	27	20	24	35	26	11	25	752

temperature																									
contact to harmful substance	4	5		3	6	4	4	6	5	4	6	3	5	1	5	2	2	4	5	4	5	2	3	4	92
electric shock			1		1	1		1						1		1			1					1	8
explosion				1	1	1						1											2	1	7
burst													1												1
fire	1	1					2														1				5
traffic accident (public road)	15	11	18	21	18	17	15	16	24	11	13	10	11	12	13	16	16	15	15	11	17	11	8	6	340
traffic accident (others)		1							1		1														3
reaction to motion/improper motion	48	45	49	38	40	41	47	46	46	60	45	50	58	50	63	47	71	69	77	62	68	70	75	83	1,348
others	2	7			1	3	4	3	2	3	3	1	4	1	3	2	1	1	2	2	7	11	12	1	76
unclassifiable	1	1	1					1		2	1			1		1	1	1	2	2	1			1	17
total	497	450	509	477	486	501	490	522	532	517	463	486	487	458	499	461	523	529	548	559	574	560	528	538	12,194

Causal agents (large) of fatal and non-fatal accidents in cleaning 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	136	136	124	124	117	125	121	117	127	102	96	83	86	84	85	73	74	99	69	72	76	76	51	49	2,302



construction machine													1												1
metal manufacturing machine	8	4		4		3	4	5	6	1	1			1	1	2	1	1			1			2	45
general machine	120	120	117	113	112	115	116	111	115	99	90	75	79	83	79	66	65	86	65	65	69	71	46	44	2,121
mobile silviculture machine																				1					1
crane	13	8	5	5	5	7	5	3	8	8	5	5	2	7	2		6	8	2	1	3	3	4	1	116
conveying machine	37	25	36	44	44	37	37	42	44	43	35	37	27	39	43	34	35	43	40	39	41	37	35	38	912
vehicle	17	16	20	19	23	20	21	21	25	12	16	15	16	20	15	22	19	17	16	18	25	14	10	12	429
pressure vessel		1	1			1	1	3		1	1		3	1		3		2	2		2	1			23
chemical facilities																				1	1				2
welding equipment														1											1
kiln, caldron	5	5	3	2	1	2	2	5		2	2	5	7	2	3	2	2	5	4	2	4	3	5	5	78
electric equipment	2	3		1	2	3	2		1	2	2	3	2	1	3	3			1	3	4	6	1	2	47
human power machine, tools	27	18	39	27	25	32	35	26	27	30	30	41	27	28	37	38	48	53	42	51	65	59	52	46	903
tools	31	19	39	27	30	38	28	39	41	57	47	38	40	48	48	40	47	36	51	59	62	57	66	57	1,045
other equipments,	29	21	28	29	20	17	21	26	28	24	17	21	32	19	22	21	20	15	25	27	24	25	29	26	566

facilities																									
temporary buildings, establishments	115	108	133	118	133	148	130	130	137	135	135	156	148	124	135	147	160	164	184	159	151	160	181	166	3,457
hazards, harmful substances	6	7	2	4	4	5	7	8	7	5	6	4	7	2	7	1	4	5	9	5	7	1	3	6	122
materials	17	10	14	12	9	9	8	12	13	14	8	4	10	10	18	9	15	10	8	12	5	9	2	10	248
load	27	30	32	29	35	27	28	49	32	39	31	30	32	39	31	32	34	40	51	45	44	37	31	56	861
natural environment	7	12	6	10	12	7	10	8	12	12	10	18	12	11	16	16	15	9	12	26	22	20	11	19	313
other causal agent	6	12	14	7	5	10	10	10	10	13	2	2	7	3	9	7	14	9	9	6	8	18	14	10	215
no causal agent	20	17	12	19	20	11	23	21	20	16	17	23	28	17	25	12	30	14	22	30	28	34	33	34	526
unclassifiable	2	2	1		1	2	1	2		2	3	1	1	2		1		1	3	2			1	28	
total	497	450	509	477	486	501	490	522	532	517	463	486	487	458	499	461	523	529	548	559	574	560	528	538	12,194

Causal agents (small) of fatal and non-fatal accidents in cleaning 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			1								1	1	1			1	1		1						7
power transmission mechanism			6		4		1	1	6	2	4	7	5		5	5	6	10	4	5	5	5	5	3	89
circular sawing					1												1	1							3









lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane			1					1				1								1		2		6	
truck			11		22		18	16	21	19	20	16	8	17	24	13	14	27	21	23	23	24	20	19	376
forklift			1		2		2	3			1			1	1	3		1	1	1	3	1		2	23
railway equipment																							1		1
conveyor			22		18		15	19	23	21	12	20	18	18	16	17	19	14	18	13	13	6	13	17	332
loader													1												1
straddle carrier																									
rough terrain hauler																									
other powered conveying machines			2		2		2	4		3	2	1	1	2	2	1	2	1		2	2	6	1		36
cars, bus, motorcycle			20		22		21	21	25	12	16	14	15	17	14	21	19	17	16	18	24	14	10	11	347
railway vehicle																									
other vehicles					1							1	1	3	1	1					1			1	10
boiler			1				1	2		1	1		2	1		2			1		1	1			14
pressure vessel													1			1		1	1		1				5

other pressure vessels							1										1						2		
chemical facilities																			1	1			2		
gas welding equipment																									
arc welding equipment													1										1		
other welding equipment																									
kiln, caldron							1														2		3		
industrial dryer			3		1		2	4		2	2	4	7	2	3	2	2	5	3	2	4	3	3	5	59
other kiln, caldron												1						1						2	
transmission													1	1	2	1			1	2	3	3	1	1	16
electric power facilities															1									1	2
other electrical equipment					2		2		1	2	2	3	1			2				1	1	3			20
human power cranes																				2	8	5	10	15	40
human power hauling equipment			36		22		34	23	26	28	28	37	26	27	35	36	44	49	39	45	55	51	41	28	710
human power			1		1			1	1	1		2				1	1	2	1	1				1	14

machine																									
hand tool			2		2		1	2		1	2	2	1	1	2	1	3	2	2	3	2	3	1	2	35
ladder			24		17		14	18	20	31	20	21	23	18	29	19	25	16	22	30	27	32	31	33	470
slinging tool					1																				1
other tools			15		12		14	21	21	26	27	17	17	30	19	21	22	20	29	29	35	25	35	24	459
other equipment, facilities			28		20		21	26	28	24	17	21	32	19	22	21	20	15	25	27	24	25	29	26	470
scaffolding							2														1				3
timbering																									
stairs, landing stage			34		33		32	23	28	24	19	21	27	20	21	27	29	31	27	16	25	26	34	35	532
opening			1		1		5		2		1	2	1	2	2	1	2				1		1		22
roof, beam, haze, crossbeam, principal rafter			1		2		1		1	2		1	2					1	2	1		1	2	1	18
working platform, boot board			17		17		22	16	12	18	19	20	27	13	9	24	30	19	26	19	14	19	18	18	377
passage			61		54		43	51	65	70	71	82	64	63	72	78	72	82	89	92	81	92	103	89	1,474
building, establishment			11		14		12	26	17	17	17	21	23	17	23	6	11	20	21	20	19	10	9	13	327
other temporary buildings, establishments			8		12		13	14	12	4	8	9	4	9	8	11	16	11	19	11	10	12	14	10	215



high/cold temperature environment			3		2				3	4	4	2	8	2	1	5	7	7	3	4	11	12	9	1	9	97
other environments			3		8		9	4	7	7	7	9	9	9	11	9	8	5	7	15	10	11	9	10	167	
other causal agent			14		5		10	10	10	13	2	2	7	3	9	7	14	9	9	6	8	18	14	10	180	
no causal agent			12		20		23	21	20	16	17	23	28	17	25	12	30	14	22	30	28	34	33	34	459	
unclassifiable			1		1		1	2		2	3	1	1	2		1			1	3	2			1	22	
total	497	450	509	477	486	501	490	522	532	517	463	486	487	458	499	461	523	529	548	559	574	560	528	538	12,194	

#### Workers age of fatal and non-fatal accidents in cleaning 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	5	9	7	3	5	6	9	6	3	7	4	10	7	7	4	8	6	9	7	4	5	6	4	4	145
20-29	84	70	68	73	85	43	53	54	52	52	40	49	41	36	44	41	34	40	43	44	35	41	40	28	1,190
30-39	78	75	87	72	75	100	89	88	101	88	73	82	76	56	84	61	65	57	79	64	72	56	51	49	1,778
40-49	112	97	110	87	80	100	86	115	121	105	99	94	98	116	95	109	127	132	122	119	118	92	101	104	2,539
50-59	155	155	175	179	159	173	181	191	164	158	138	152	155	134	154	140	152	143	149	172	168	171	153	162	3,833
60 years old or more	63	44	62	63	82	79	72	68	91	107	109	99	110	109	118	102	139	148	148	156	176	194	179	191	2,709
total	497	450	509	477	486	501	490	522	532	517	463	486	487	458	499	461	523	529	548	559	574	560	528	538	12,194

#### Workers' number of workplace of fatal and non-fatal accidents in cleaning in 1999-2022





Chiba	18	20	24		23		18	28	38	27	27	36	29	32	28	21	27	18	27	37	40	32	36	28	614
Tokyo	35	26	36		34		32	40	41	47	28	26	36	27	33	32	37	43	26	37	36	29	36	30	747
Kanagawa	37	39	45		38		32	43	36	37	37	40	39	28	45	27	33	45	39	29	53	41	31	44	838
Niigata	10	17	10		13		12	8	14	12	9	17	9	13	15	14	12	8	22	20	17	14	14	7	287
Toyama	4	1	2		1		6	4	8	5	3	6	4	6	2	5	6	8	8	3	4	5	8	5	104
Ishikawa	1	3	6		4		4	8	5	6	6	5	10	6	9	6	4	2	6	5	9	6	4	5	120
Fukui	3	3	3		3		1	2	2	1	2	2	1	4	4	2	3	4		3	1	5	3	4	56
Yamanashi	3	1	3		1		4	4	5	4	2	5	4	3	1	2	3		4	4	8	2	5	5	73
Nagano	3	5	3		5		8		9	8	6	5	3	3	10	7	9	9	11	8	9	6	5	3	135
Gifu	13	6	5		6		9	10	9	10	13	11	18	10	9	6	8	8	11	6	13	19	5	10	215
Shizuoka	25	15	16		19		20	13	18	11	7	12	5	18	19	12	18	18	15	23	16	28	12	14	354
Aichi	26	21	21		17		27	18	13	20	21	16	11	16	22	16	19	20	24	12	15	18	19	22	414
Mie	6	5	3		6		4	2	8	5	5	1	4	1	4	9	5	8	11	7	12	4	6	3	119
Shiga	5	2	3		9			5	3	5	4	3	3	2	5	3	8	5	2	7	4	7	7	3	95
Kyoto	14	3	9		12		9	19	12	19	11	14	12	13	16	6	10	21	17	19	12	16	19	18	301
Osaka	23	27	36		20		23	33	34	20	23	24	18	28	21	26	30	22	22	34	35	31	23	26	579
Hyogo	17	22	13		21		17	12	14	8	20	18	13	13	19	10	14	19	18	11	21	15	17	15	347
Nara	1	4	9		4		8	2	4	3	9	4	2	6	4	7	5	8	6	10	3	7	11	9	126
Wakayama	8	2	1		3		13	3	5	4	5	3	7	4	4	4	7	4	2	4	6	2	6	4	101
Tottori	2	3			2		3	1	2	3	4		1	3	3	2	1	1	3	3	2	2	1	3	45
Shimane	6	3	5		7		4	8	7	10	4	7	5	2	4	6	4	2	7	4	7	6	3	1	112



Okayama	5	4	7		8			3	7	2		3	1	5	4	1	1	3	2	4	4	6	5	6	81
Hiroshima	11	11	11		8		22	16	12	14	8	12	13	12	8	21	15	17	19	12	17	10	7	19	295
Yamaguchi	13	11	6		11		4	6	2	2	3	5	5	3	3	4	5	5	2	3	3	4	4	3	107
Tokushima	1		3				1	3	2	2		2					2	1	4	1	1	1	8	1	33
Kagawa	3	7	13		8		5	8	6	6	6	3	4	5	7	3	3	2	6	2	5	6	6	8	122
Ehime	10	5	8		4		4	4	4	3	9	12	9	4	2	11	1	3	8	7	3	4	5	4	124
Kochi	5	5	4		4		1	5	6	4	2	2	5	1	3	5	3		4		3	1	1	3	67
Fukuoka	23	17	21		21		26	28	26	27	17	21	19	20	17	15	22	29	22	35	19	23	17	18	483
Saga	8	7	9		9		4	9	10	8	4	4	4	6	6	4	7	14	7	5	5	6	12	12	160
Nagasaki	8	5	6		6		6	5	3	3	7	7	4	8	7	6	7	4	6	5	5	10	5	5	128
Kumamoto	6	7	4		6		7	7	9	13	5	8	9	7	10	7	13	5	11	7	6	5	12	4	168
Oita	3	3	3		3		6	10	1	8	5	1	3	2	2		4	4	3	8	1	4	3	7	84
Miyazaki	6	2	4		3		5	9	3	5	1	3	8	5	3	2	3	4	3	4	5	2	5	1	86
Kagoshima	5	10	7		6		8	9	4	7	7	5	8	5	9	5	2	8	6	6	10	8	11	7	153
Okinawa	3	4	3		7		7	7	7	8	8	12	8	7	5	9	5	9	8	15	9	11	9	7	168
total	497	450	509	477	486	501	490	522	532	517	463	486	487	458	499	461	523	529	548	559	574	560	528	538	12,194

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)

















machine																								
skyline yarding machine																								
other mobile silviculture machine																								
crane																								
mobile crane																								
derrick crane																								
elevator, lift				1		1			1	2			1									1	7	
cargo lifting appliance																								
gondola																								
lumberyard equipment, logging cableway																								
simple skyline yarding equipment																								
other powered crane																								
truck			1	1								1								1				4
forklift																								
railway equipment	1																							1
conveyor															1				1	1				3









20-29	2	1		1				1								2		1							8
30-39		1	2	1		3	1		2			2	1					1			2				16
40-49		1	1							1		1		2	1		1						1	1	10
50-59	1			1			2		1	1				2		1				1		1	1	1	13
60 years old or more	1	1	1	2		1			1	2	1		1				1		2		3	1		1	19
total	4	4	4	5		4	4		4	4	1	3	2	4	1	3	2	2	2	1	5	2	2	3	66

#### Workers' number of workplace of fatal accidents in cleaning 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						1				1												1			3
10-29			2	1		1				2	1			2	1		2		1					1	14
30-49	1	1		1		1	3		2	1		1	1			2			1		1	1		1	18
50-99	3	3	2				1		1			2	1	1		1		1			2		1		19
100-299				3		1			1									1		1	2			1	10
300 workers or more														1										1	2
total	4	4	4	5		4	4		4	4	1	3	2	4	1	3	2	2	2	1	5	2	2	3	66

#### Month of fatal accidents in cleaning 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				1		1			1	1			1					2							7









total	4	4	4	5		4	4		4	4	1	3	2	4	1	3	2	2	2	1	5	2	2	3	66
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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](https://www.jisha.or.jp/english/statistics/2022e_industry.html)