

Fatal and non-fatal accidents in commercial cleaning and livestock process in Japan in 1999-2021

commercial cleaning and livestock process industry Code No.15

Type of accidents in commercial cleaning and livestock process in 1999-2021

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	total	Type of accidents
fall from height	1,176	1,149	1,235	1,186	1,222	1,236	1,235	1,291	1,236	1,292	1,101	1,137	1,124	1,138	1,205	1,188	1,139	1,187	1,193	1,229	1,307	1,290	1,264	27,760	fall from height
falling to same level	1,559	1,597	1,657	1,621	1,686	1,702	1,610	1,725	1,711	1,806	1,647	1,702	1,746	1,738	1,888	1,908	1,822	1,980	1,898	2,244	2,127	2,158	2,322	41,854	falling to same level
crash	347	371	345	328	341	363	352	370	342	408	381	367	344	366	343	351	351	347	363	385	422	452	393	8,432	crash
struck by flying or falling object	290	294	283	236	328	278	291	316	288	259	232	241	289	227	256	246	265	262	237	215	267	264	215	6,079	struck by flying or falling object
collapse	65	61	71	80	71	87	66	71	76	76	69	63	48	52	62	63	57	60	61	60	59	59	52	1,489	collapse
crashed by	207	201	211	202	195	224	227	212	198	207	201	172	170	203	217	175	187	202	180	199	204	209	187	4,590	crashed by
caught in/between	663	686	707	700	796	747	701	704	688	802	624	631	668	668	674	651	703	638	661	661	667	663	618	15,721	caught in/between
cut	325	332	338	354	326	299	298	336	288	317	279	309	279	265	298	290	238	248	230	230	263	276	242	6,660	cut
injury to the sole of the foot	18	17	15	23	26	28	22	24	23	23	22	20	17	27	18	19	11	15	29	25	15	18	17	472	injury to the sole of the foot
drown	1	1	1		1	1	2	1	1	2	2	3	22			2	2	2	3	2	2	1	2	54	drown
contact to high/low-temperature	73	64	84	71	48	73	66	69	67	64	64	81	71	49	68	67	48	68	71	126	103	100	66	1,661	contact to high/low-temperature
contact to harmful	49	41	36	54	40	43	54	29	46	47	33	34	39	43	36	37	39	44	33	44	49	47	32	949	contact to harmful

substance																									substance
electric shock	5	9	8	5	6	3	6	5	6	4	3	6	10	2	4	4	5	3	3	5	6	5	5	118	electric shock
explosion	7	10	7	8	6	4	4	5	6	10	2	2	3	4	5	5	4	7	4	4	3	6	5	121	explosion
burst	4	1		2	2	5		3	3	1	3	4	7	1	4	3	4	5	3	1	3	4	4	67	burst
fire	9	2	2		3	2	1	2	4	5	4	4	4	2		5	1	2		3	2	2	3	62	fire
traffic accident (public road)	188	194	192	218	210	190	215	206	215	202	159	192	164	214	209	204	188	157	193	206	195	159	137	4,407	traffic accident (public road)
traffic accident (others)	4	3	2		7	3	2	5	10	2		4	4	2	4	2	4	1	3	3	4	9	1	79	traffic accident (others)
reaction to motion/improper motion	815	735	751	674	792	740	808	762	811	827	764	764	766	725	710	711	707	752	738	753	859	904	952	17,820	reaction to motion/improper motion
others	36	40	39	37	44	44	40	50	46	33	31	29	48	39	27	47	50	30	43	46	53	149	283	1,284	others
unclassifiable	14	11	9	26	16	5	14	12	23	8	9	3	6	7	9	11	9	8	7	9	7	6	7	236	unclassifiable
total	5,855	5,819	5,993	5,825	6,166	6,077	6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	139,915	total

Causal agents (large) of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Causal (L) agents
machine	283	274	324	324	351	347	333	342	331	354	290	318	307	289	307	306	309	282	308	272	325	290	272	7,138	machine
crane, conveying machine	1,026	1,059	1,079	1,030	1,102	1,051	1,106	1,075	1,094	1,156	980	981	1,033	1,110	1,094	1,076	1,036	992	992	1,012	1,079	1,076	1,001	24,240	crane, conveying machine
other equipment	916	900	980	934	986	981	981	1,060	1,071	1,201	1,009	1,042	957	1,024	1,138	1,032	965	1,047	1,029	1,072	1,142	1,130	1,075	23,672	other

																										equipment
temporary buildings, establishments	2,072	2,112	2,114	2,107	2,214	2,246	2,101	2,250	2,170	2,288	2,055	2,147	2,095	2,063	2,155	2,156	2,163	2,390	2,330	2,656	2,592	2,585	2,695	51,756	temporary buildings, establishments	
substance, material	417	400	405	441	413	418	403	447	429	445	347	334	362	336	378	382	348	334	340	312	373	367	315	8,746	substance, material	
load	468	490	473	399	467	399	434	432	439	389	357	343	378	315	319	311	330	347	327	320	377	442	363	8,919	load	
environment	172	160	216	146	170	182	199	186	154	164	183	192	249	226	254	286	218	225	247	330	244	274	261	4,938	environment	
others	501	424	402	444	463	453	457	406	400	398	409	411	448	409	392	440	465	401	380	476	485	617	825	10,506	others	
total	5,855	5,819	5,993	5,825	6,166	6,077	6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	139,915	total	

Causal agents (middle) of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

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hazards, harmful substances	68	51	58	83	60	58	71	46	67	70	52	48	48	48	42	51	49	53	50	52	54	48	44	1,271	hazards, harmful substances
materials	349	349	347	358	353	360	332	401	362	375	295	286	314	288	336	331	299	281	290	260	319	319	271	7,475	materials
load	468	490	473	399	467	399	434	432	439	389	357	343	378	315	319	311	330	347	327	320	377	442	363	8,919	load
natural environment	172	160	216	146	170	182	199	186	154	164	183	192	249	226	254	286	218	225	247	330	244	274	261	4,938	natural environment
other causal agent	199	206	167	138	155	151	128	124	101	110	98	111	132	103	84	119	133	97	111	101	110	197	342	3,217	other causal agent
no causal agent	257	202	218	277	282	290	310	266	277	271	291	288	305	293	296	303	325	292	255	363	369	407	478	6,915	no causal agent
unclassifiable	45	16	17	29	26	12	19	16	22	17	20	12	11	13	12	18	7	12	14	12	6	13	5	374	unclassifiable
total	5,855	5,819	5,993	5,825	6,166	6,077	6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	139,915	total

Causal agents (small) of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Causal (S) agents
engine			1		1		1	2	1	1	1	2	2	1	1	2	1	2	6		1	1		27	engine
power transmission mechanism			21		21		13	22	14	15	20	23	23	17	17	25	20	10	17	19	17	17	25	356	power transmission mechanism
circular sawing machine			15		21		17	9	19	8	15	15	9	13	9	10	12	16	14	11	19	18	7	257	circular sawing machine
band sawing machine												1	1	1	1								2	6	band sawing machine
wood planer machine			1				1	1		1	1	1								1		1		8	wood planer machine

hollow chisel mortiser, wood borer							1																1	hollow chisel mortiser, wood borer	
chamfering machine, router, woodworking milling machine																	1							1	chamfering machine, router, woodworking milling machine
chain saw			5		3		7	8	4	6	6	12	6	7	8	8	8	2	5	5	7	4	10	121	chain saw
other woodworking machines			3		5		6	4	5	8	2	6	5	2	3	3	4	3	3	4	2	5	4	77	other woodworking machines
leveling, transporting or loading machine			20		19		22	20	20	21	19	16	13	24	21	11	15	25	25	21	18	20	20	370	leveling, transporting or loading machine
excavating machine			25		34		37	30	33	41	29	28	36	30	31	32	19	26	41	34	38	34	28	606	excavating machine
foundation work machine								3	1	1					1	1								7	foundation work machine
hardening machine					1			2									2	1						6	hardening machine
demolition machine			8		7		4	3	3	5	2	4	4	7	15	16	24	25	18	17	26	23	24	235	demolition machine
vehicle for high lift work			1					1	1	1	3	1	2			2	3	1	2	3	1	1	1	24	vehicle for high lift work
other construction machines			18		15		18	20	15	16	13	12	8	21	21	9	8	5	7	4	3	5	6	224	other construction machines
lathe										1			1		1									3	lathe
drill press, milling machine					1		2			1			2	2							1	2		11	drill press, milling machine
grinding machine,			8		7		8	11	16	10	9	11	12	5	8	8	11	12	5	11	8	11	10	181	grinding machine,

buffing machine																										buffing machine
power press			2		2		3	5	2	2	1		5	2	3	2	2	2	3	1	2	1	5	45		power press
forging pressure hammer								1										1				1		3		forging pressure hammer
shearing machine			3		2		3	3	3	2	1	4	3	6	2	4	5	4	5	2	4	2	1	59		shearing machine
other metal manufacturing machines			14		16		16	14	16	14	9	20	17	8	14	17	10	14	10	13	18	11	12	263		other metal manufacturing machines
centrifugal machine					2		1	1		3	1			1	1	1			1	1	1			14		centrifugal machine
mixer, grinder			13		27		21	25	33	28	25	19	16	21	19	27	25	17	21	18	26	17	27	425		mixer, grinder
roll machine (except printingroll machine)					3		3	1	1	2	1		3	3	1	1	3		1	4	3		2	32		roll machine (except printingroll machine)
injection molding machine										1	1	3	2		1				3	1	1	2	1	16		injection molding machine
food manufacturing machine			11		4		10	7	5	10	4	10	7	5	12	5	8	3	6	4	5	4	6	126		food manufacturing machine
printing machine			1						1		1		1			1		2						7		printing machine
industrial robot										1	1				1		1							4		industrial robot
other general power machines			154		160		140	148	138	155	125	130	129	113	116	121	128	109	115	97	123	110	81	2,392		other general power machines
felling machine																		1		1	1			3		felling machine
mobile logging machine																										mobile logging machine
skyline yarding machine																										skyline yarding machine

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hauling equipment			75		81		92	82	98	115	118	96	99	110	114	118	118	98	120	124	125	128	106	2,017	hauling equipment
human power machine			4		2					1	2	1	2		4	2	3	4	2		4	3	2	36	human power machine
hand tool			107		109		96	110	94	104	94	95	82	80	89	92	86	74	71	95	83	103	87	1,751	hand tool
ladder			368		387		372	381	355	399	333	372	356	368	384	346	327	330	313	344	338	349	298	6,720	ladder
slinging tool			8		9		3	12	10	5	4	3	4	1	7	4	3	9	7	5	7	4	8	113	slinging tool
other tools			188		179		195	221	229	271	193	216	178	199	246	204	202	235	250	268	290	258	274	4,296	other tools
other equipment, facilities			175		188		184	220	241	262	232	231	187	231	263	235	199	264	224	198	251	223	247	4,255	other equipment, facilities
scaffolding			23		29		24	23	25	27	21	19	18	21	17	12	20	17	8	23	13	13	12	365	scaffolding
timbering			2					2	1															5	timbering
stairs, landing stage			412		415		408	479	415	454	426	429	443	407	434	489	469	502	487	536	576	543	616	8,940	stairs, landing stage
opening			42		25		22	37	23	25	30	35	21	18	35	17	16	26	29	36	28	40	24	529	opening
roof, beam, haze, crossbeam, principal rafter			30		30		27	29	20	38	23	18	28	29	31	23	17	22	21	21	19	20	22	468	roof, beam, haze, crossbeam, principal rafter
working platform, boot board			292		348		269	297	337	326	304	286	226	243	275	282	253	259	252	332	296	264	212	5,353	working platform, boot board
passage			661		707		743	746	749	763	698	767	816	772	787	796	770	975	937	1,122	1,052	1,076	1,211	16,148	passage
building, establishment			399		376		365	388	370	407	348	353	347	374	374	290	331	300	365	346	288	338	314	6,673	building, establishment
other temporary buildings, establishments			253		284		243	251	229	247	205	240	196	199	202	247	287	289	231	240	320	291	284	4,738	other temporary buildings, establishments
explosive substance			2		2		3	2	1	1	1		1	1		1	1	2	1	2	1		2	24	explosive substance

inflammable substance			8		3		3	2	9	7	2	2	1	1	1	5	6	1	4	3	3	4	7	72	inflammable substance
inflammable gas			3		4		3	3	2	7	5	3	3	3	3	4	1	6	2	2	2	1	5	62	inflammable gas
harmful substance			19		20		26	16	33	28	19	18	20	21	19	10	16	21	18	19	20	15	7	365	harmful substance
radiation																									radiation
other hazards, harmful substances			26		31		36	23	22	27	25	25	23	22	19	31	25	23	25	26	28	28	23	488	other hazards, harmful substances
metal material			131		125		130	146	146	153	118	118	120	97	106	106	110	105	108	91	125	118	106	2,259	metal material
lumber, bamboo			47		47		36	51	40	36	42	28	44	31	35	42	38	30	42	36	38	32	38	733	lumber, bamboo
stone, sand, substance			27		23		18	29	26	26	21	14	21	25	24	23	19	16	18	15	16	26	13	400	stone, sand, substance
other materials			142		158		148	175	150	160	114	126	129	135	171	160	132	130	122	118	140	143	114	2,667	other materials
load			448		442		404	398	415	359	331	313	347	295	298	293	308	327	302	300	355	420	340	6,695	load
machine/equipment as load			25		25		30	34	24	30	26	30	31	20	21	18	22	20	25	20	22	22	23	468	machine/equipment as load
natural ground, rock			30		29		28	24	28	24	22	24	20	18	21	20	23	10	23	16	23	17	18	418	natural ground, rock
standing tree			17		24		15	13	19	14	21	15	19	19	17	13	18	18	18	15	10	28	16	329	standing tree
water			19		9		19	23	16	13	15	8	44	11	9	14	3	9	6	8	7	9	11	253	water
abnormal environment			3					1		2		3	1	8	4	2	1	2	1	5	4	5	1	43	abnormal environment
high/cold temperature environment			32		11		16	17	16	17	17	44	36	30	36	25	25	43	35	94	66	65	42	667	high/cold temperature environment
other environments			115		97		121	108	75	94	108	98	129	140	167	212	148	143	164	192	134	150	173	2,568	other environments
other causal agent			167		155		128	124	101	110	98	111	132	103	84	119	133	97	111	101	110	197	342	2,523	other causal agent

no causal agent			218		282		310	266	277	271	291	288	305	293	296	303	325	292	255	363	369	407	478	5,889	no causal agent
unclassifiable			17		26		19	16	22	17	20	12	11	13	12	18	7	12	14	12	6	13	5	272	unclassifiable
total			5,993		6,166		6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	116,339	total

Workers age of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less	83	83	86	66	87	67	73	65	62	58	32	50	46	50	58	55	41	51	45	56	44	52	44	1,354	19 years old or less
20-29	832	835	842	775	764	717	697	656	597	598	502	504	514	449	477	415	393	402	399	399	418	424	440	13,049	20-29
30-39	802	903	899	976	1,045	1,062	1,077	1,065	1,028	1,067	943	937	864	882	886	763	760	719	704	687	704	690	715	20,178	30-39
40-49	933	861	856	831	927	848	878	930	894	967	908	935	1,017	1,045	1,077	1,114	1,081	1,108	1,012	1,070	1,104	1,142	1,065	22,603	40-49
50-59	1,701	1,664	1,683	1,662	1,761	1,733	1,663	1,763	1,751	1,569	1,373	1,379	1,372	1,289	1,321	1,325	1,237	1,337	1,249	1,331	1,419	1,469	1,445	34,496	50-59
60 years old or more	1,504	1,473	1,627	1,515	1,582	1,650	1,626	1,719	1,756	2,136	1,872	1,963	2,016	2,057	2,218	2,317	2,322	2,401	2,544	2,907	2,928	3,004	3,098	48,235	60 years old or more
total	5,855	5,819	5,993	5,825	6,166	6,077	6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	139,915	total

Workers' number of workplace of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Workers scale
9 workers or less	1,079	1,110	1,121	1,118	1,195	1,133	1,086	1,166	1,009	1,090	924	974	973	988	1,006	942	997	914	888	922	1,010	935	895	23,475	9 workers or less
10-29	1,361	1,374	1,377	1,366	1,455	1,435	1,421	1,432	1,502	1,501	1,311	1,410	1,410	1,317	1,411	1,378	1,335	1,381	1,420	1,463	1,538	1,616	1,558	32,772	10-29
30-49	684	740	811	785	799	783	823	815	875	967	805	830	836	840	864	819	883	931	876	1,003	1,084	1,074	1,032	19,959	30-49
50-99	914	825	919	875	916	895	923	925	889	939	878	820	903	914	874	901	870	983	915	893	1,004	1,082	1,124	21,181	50-99
100-299	1,180	1,147	1,093	1,051	1,179	1,205	1,146	1,254	1,188	1,206	1,068	1,037	1,069	1,037	1,140	1,161	1,109	1,117	1,076	1,227	1,134	1,219	1,334	26,377	100-299

300 workers or more	637	623	672	630	622	626	615	606	625	692	644	697	638	676	742	788	640	692	778	942	847	855	864	16,151	300 workers or more
total	5,855	5,819	5,993	5,825	6,166	6,077	6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	139,915	total

Month of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January	500	438	522	458	516	506	429	561	475	556	499	442	491	472	590	536	517	601	524	665	556	535	648	12,037	January
February	445	474	481	444	445	492	488	513	455	579	451	487	480	514	498	611	467	464	464	520	564	549	536	11,421	February
March	488	473	504	482	565	517	494	551	507	533	507	484	533	493	486	447	494	482	515	515	505	504	590	11,669	March
April	510	456	475	489	510	511	468	453	516	521	453	474	469	461	502	475	477	471	476	527	497	511	546	11,248	April
May	452	480	512	464	527	470	515	528	536	539	421	467	463	450	443	465	452	520	480	488	496	480	526	11,174	May
June	578	518	472	498	543	521	527	506	518	559	494	505	515	508	508	462	504	502	486	518	591	612	525	11,970	June
July	527	547	552	567	588	530	540	539	569	535	493	562	503	510	553	534	550	524	510	649	652	639	561	12,734	July
August	549	524	554	515	522	540	549	563	564	524	515	548	537	567	548	465	480	549	531	537	604	611	663	12,559	August
September	471	530	486	468	505	482	539	500	526	540	461	469	461	409	467	490	480	490	438	511	554	634	546	11,457	September
October	514	473	494	526	499	511	493	531	483	509	459	441	422	493	491	511	510	489	536	564	582	580	584	11,695	October
November	426	441	452	456	464	486	431	501	452	502	414	440	457	437	480	483	476	475	491	475	514	514	529	10,796	November
December	395	465	489	458	482	511	541	452	487	498	463	449	498	458	471	510	427	451	502	481	502	612	553	11,155	December
total	5,855	5,819	5,993	5,825	6,166	6,077	6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	139,915	total

Prefecture of fatal and non-fatal accidents in commercial cleaning and livestock process in 1999-2021

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido	304	298	332		328		340	306	346	342	294	319	347	308	374	359	390	352	329	366	423	457	400	7,314	Hokkaido

Kyoto	153	168	167		145		153	141	138	128	125	109	120	151	125	114	129	126	153	121	119	117	124	2,826	Kyoto
Osaka	750	725	689		691		644	597	548	569	569	526	538	470	467	499	416	487	429	489	463	430	520	11,516	Osaka
Hyogo	239	208	232		332		261	263	271	280	221	254	262	245	259	236	236	250	258	241	256	290	279	5,373	Hyogo
Nara	64	37	53		46		44	52	47	45	48	48	49	52	58	66	51	65	42	51	42	77	80	1,117	Nara
Wakayama	27	21	29		39		57	57	47	42	42	49	39	42	44	34	42	41	48	41	46	36	42	865	Wakayama
Tottori	20	20	32		19		29	24	32	26	16	15	27	20	19	23	30	28	24	20	25	27	19	495	Tottori
Shimane	20	34	31		37		33	27	22	33	27	27	29	20	39	23	26	24	20	29	23	25	18	567	Shimane
Okayama	52	46	52		72		64	77	47	70	51	68	65	68	63	64	73	78	77	76	73	84	76	1,396	Okayama
Hiroshima	147	158	154		128		157	157	155	135	119	117	130	141	126	128	125	147	132	135	148	148	162	2,949	Hiroshima
Yamaguchi	61	51	57		52		67	73	46	49	56	52	51	61	45	42	59	58	67	49	50	66	48	1,160	Yamaguchi
Tokushima	43	43	51		51		47	51	37	53	33	31	34	48	41	44	42	32	41	39	46	42	47	896	Tokushima
Kagawa	38	48	33		48		53	40	49	41	56	43	38	43	45	38	38	50	40	52	56	48	57	954	Kagawa
Ehime	46	73	54		52		58	51	50	42	47	50	34	55	47	45	51	54	47	55	70	54	67	1,102	Ehime
Kochi	58	45	47		38		34	35	49	37	35	41	44	34	29	46	32	26	35	45	33	46	45	834	Kochi
Fukuoka	295	275	304		314		290	343	323	292	282	274	289	285	295	273	289	302	327	328	332	339	353	6,404	Fukuoka
Saga	44	38	42		36		46	42	37	39	27	34	27	35	46	34	32	57	37	51	51	45	44	844	Saga
Nagasaki	64	46	60		68		84	71	81	68	55	52	51	59	68	58	72	61	63	68	59	84	71	1,363	Nagasaki
Kumamoto	89	80	77		70		69	93	73	93	80	73	85	74	74	87	73	105	96	92	102	117	80	1,782	Kumamoto
Oita	50	63	53		62		71	67	87	65	67	53	69	51	55	58	71	55	68	61	75	71	59	1,331	Oita
Miyazaki	58	64	55		64		62	56	43	56	58	49	57	52	38	44	44	39	50	50	71	62	63	1,135	Miyazaki
Kagoshima	41	47	47		72		67	65	57	63	62	49	49	46	40	52	72	67	70	74	78	76	83	1,277	Kagoshima
Okinawa	33	29	44		44		43	51	53	71	49	56	57	65	51	74	66	81	70	90	92	83	69	1,271	Okinawa
total	5,855	5,819	5,993		6,166		6,014	6,198	6,088	6,395	5,630	5,768	5,829	5,772	6,037	5,989	5,834	6,018	5,953	6,450	6,617	6,781	6,807	128,013	total

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more. 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.htm> (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2021e_industry.html

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Fatal accidents in commercial cleaning and livestock process in Japan in 1999-2021

commercial cleaning and livestock process industry Code No.15

Type of fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Type of accidents
fall from height	17	21	16	21	29	16	18	14	19	16	16	24	6	19	11	23	11	16	18	19	18	9	15	392	fall from height
falling to same level	5	2	1	1	2	2	1	4	1	2	1	1	2	2	2		3			5	1	3	2	43	falling to same level
crash	1												1									2		4	crash
struck by flying or falling object	1	3	2	3	2	1	5	1		1	1	6	1	1			2	3		2	1	2		38	struck by flying or falling object
collapse		1		2			1			2	2		1		2	1		4	1	3				20	collapse
crashed by	4	8	4	3	3	2	5	5	4	4	4	2	3	3	5	5	3		4	3	2		1	77	crashed by
caught in/between	7	18	11	16	16	17	15	9	9	18	14	14	11	11	21	11	12	6	10	5	8	15	12	286	caught in/between
cut			1						1			1		1										4	cut
injury to the sole of the foot				1																				1	injury to the sole of the foot
drown	1	1	1		1	1	1	1	1	2	2	1	20			2	2	1	3	2	2		1	46	drown

contact to high/low-temperature	1		1	2			1		1			2	2	1	1		2	2	1			4		21	contact to high/low-temperature
contact to harmful substance	5	4	2	8	2	2		4				2	2	3	1			1	1	2	4	2		45	contact to harmful substance
electric shock		2	2					2			1		1		1									9	electric shock
explosion	2		2																1					5	explosion
burst															1		1							2	burst
fire	2				1	1								1			1				1		1	8	fire
traffic accident (public road)	11	10	17	12	8	8	10	13	4	10	3	9	6	5	5	8	4	4	6	7	7	11	2	180	traffic accident (public road)
traffic accident (others)									1															1	traffic accident (others)
reaction to motion/improper motion																									reaction to motion/improper motion
others	1		1		2	1	1	1	2		1		11		1	1	1	3			2		4	33	others
unclassifiable							1																	1	unclassifiable
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

Causal agents (large) of fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Causal (L) agents
machine	6	9	8	14	10	8	11	2	7	10	7	9	2	6	10	4	7	3	3	6	4	8	5	159	machine
crane, conveying machine	22	31	30	22	24	21	30	27	15	26	17	22	22	22	23	24	18	13	20	15	18	26	12	500	crane, conveying machine

other equipment	7	8	6	5	7	7	5	9	6	6	6	7	5	4	5	10	4	11	4	3	4	3	4	136	other equipment
temporary buildings, establishments	11	16	9	14	18	9	7	8	11	11	10	15	4	9	5	13	7	5	12	15	11	2	10	232	temporary buildings, establishments
substance, material	10	4	3	7	2	2	2	3			3	4	2	2	3		1		1	2	2		1	54	substance, material
load		2	1	1	1					2		1						1		2			1	12	load
environment			2	4	2	1	1	3	2		2	4	32	4	1	1	2	5	4	5	5	8	1	89	environment
others	2		2	2	2	3	3	2	2						2	1	2	3		1	2	1	4	34	others
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

Causal agents (middle) of fatal accidents in commercial cleaning and livestock process in 1999-2021

Causal (M) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (M) agents
engine																									engine
power transmission mechanism		2								1											1			4	power transmission mechanism
woodworking machine									1			2												3	woodworking machine
construction machine	3	6	6	6	8	4	2	1	1	2	2	5	1	3	3	3	5	2	2	4	2	4	4	79	construction machine
metal manufacturing machine				1			1		2											1				5	metal manufacturing machine
general machine	3	1	2	7	2	4	8	1	3	7	5	2	1	3	7	1	2	1	1	1	1	4	1	68	general machine
mobile silviculture machine																									mobile silviculture machine

[illegible]

total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total
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Causal agents (small) of fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Causal (S) agents
engine																									engine
power transmission mechanism		2							1											1				4	power transmission mechanism
circular sawing machine									1															1	circular sawing machine
band sawing machine																									band sawing machine
wood planer machine																									wood planer machine
hollow chisel mortiser, wood borer																									hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																									chamfering machine, router, woodworking milling machine
chain saw												1												1	chain saw
other woodworking machines												1												1	other woodworking machines
leveling, transporting or loading machine	1	5	2	1	4	2	2			2	1	2		1	1	1	1		2	2	2	1	3	36	leveling, transporting or loading machine

																									loading machine
excavating machine	1			2	1	1						1	1	2	1					1			1	12	excavating machine
foundation work machine																									foundation work machine
hardening machine																									hardening machine
demolition machine			1													2	4	2		1		3		13	demolition machine
vehicle for high lift work			1	1																			2		vehicle for high lift work
other construction machines	1	1	2	2	3	1		1	1		1	2			1									16	other construction machines
lathe																									lathe
drill press, milling machine																									drill press, milling machine
grinding machine, buffing machine																									grinding machine, buffing machine
power press																									power press
forging pressure hammer																									forging pressure hammer
shearing machine																									shearing machine
other metal manufacturing machines				1				1		2										1				5	other metal manufacturing machines
centrifugal machine																									centrifugal machine
mixer, grinder	1		1	4	2	2	4		2	3	3	1		1	5	1		1				2	1	34	mixer, grinder
roll machine (except printingroll																									roll machine (except printingroll

machine)																									machine)
injection molding machine																					1		1	injection molding machine	
food manufacturing machine	1																						1	food manufacturing machine	
printing machine																								printing machine	
industrial robot																								industrial robot	
other general power machines	1	1	1	3		2	4	1	1	4	2	1	1	2	2		2		1	1	1	1		32	other general power machines
felling machine																								felling machine	
mobile logging machine																								mobile logging machine	
skyline yarding machine																								skyline yarding machine	
other mobile silviculture machine																								other mobile silviculture machine	
crane			2					1				1						1		1			1	7	crane
mobile crane	3	2									1	2	1	2	3		1	1	2		1			19	mobile crane
derrick crane																								derrick crane	
elevator, lift	2	1	1		1					1				2					1					9	elevator, lift
cargo lifting appliance																								cargo lifting appliance	
gondola																								gondola	
lumberyard equipment, logging cableway																								lumberyard equipment, logging	

[illegible]

[illegible]

stairs, landing stage		2	1	1	1	1	1	2		1	3	4			1	3	1	2	3	5	3		3	38	stairs, landing stage
opening		1		3	2	1	1		2			2	1	1	1				1	3	2			21	opening
roof, beam, haze, crossbeam, principal rafter	1	2	1	3	1	1		1						1		1	3		1	2	3		3	24	roof, beam, haze, crossbeam, principal rafter
working platform, boot board	1	3	2		2		1	2		2	1	2		1		3	2	1	1		1		2	27	working platform, boot board
passage	1	1							1		1	1		1						1				7	passage
building, establishment	6	6	5	4	12	6	3	2	7	6	4	6	2	4	3	5	1	2	5	4	2	1	2	98	building, establishment
other temporary buildings, establishments	2	1		3			1	1	1	1			1			1			1					13	other temporary buildings, establishments
explosive substance					1																			1	explosive substance
inflammable substance	4		1											1			1			1	1		1	10	inflammable substance
inflammable gas		1											1											2	inflammable gas
harmful substance	5	3	1	6	1	2		3				1	1						1	1	1			26	harmful substance
radiation																									radiation
other hazards, harmful substances	1			1										1	1									4	other hazards, harmful substances
metal material											3	1												4	metal material
lumber, bamboo			1				1																	2	lumber, bamboo
stone, sand, substance							1																	1	stone, sand, substance

other materials												2			2									4	other materials
load		2	1	1	1					2		1					1		2			1	12	load	
machine/equipment as load																									machine/equipment as load
natural ground, rock				1	1	1		1																4	natural ground, rock
standing tree														1			1	1						3	standing tree
water					1			1	1		1	1	30			1		1	2	2	2		1	44	water
abnormal environment			1					1				1	1	2			1		1	3	2			13	abnormal environment
high/cold temperature environment			1	2			1		1		1	2	1		1		1	1	1			4		17	high/cold temperature environment
other environments				1										1			1	1		2		2		8	other environments
other causal agent	1		1	2	2	1	2														1		4	14	other causal agent
no causal agent	1					1			2						2	1	1	3		1	1	1		14	no causal agent
unclassifiable			1			1	1	2									1							6	unclassifiable
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

Workers age of fatal accidents in commercial cleaning and livestock process in 1999-2021

[illegible]

40-49	9	9	13	8	10	5	6	9	5	11	5	5	9	9	7	6	12	5	8	9	7	8	3	178	40-49
50-59	14	15	14	17	13	10	18	14	9	8	15	17	18	13	9	10	8	15	12	8	9	7	12	285	50-59
60 years old or more	20	23	12	23	21	17	27	11	17	23	17	22	25	13	20	25	14	14	16	21	19	22	20	442	60 years old or more
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

Workers' number of workplace of fatal accidents in commercial cleaning and livestock process in 1999-2021

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	total	Workers scale
9 workers or less	14	18	21	25	25	18	21	18	11	11	13	17	11	17	16	19	14	10	17	10	14	14	8	362	9 workers or less
10-29	21	26	23	26	22	16	20	19	12	19	20	22	23	12	15	17	15	11	13	18	14	17	10	411	10-29
30-49	3	9	9	7	8	8	9	7	8	14	4	6	11	5	12	5	6	7	1	9	9	7	4	168	30-49
50-99	13	9	6	4	3	3	3	2	7	4	3	8	12	3	3	7	3	6	5	3	4	5	4	120	50-99
100-299	5	6	2	3	6	4	4	6	3	5	4	7	8	5	1	3	1	4	4	6	3	4	6	100	100-299
300 workers or more	2	2		4	2	2	2	2	2	2	1	2	2	5	2	2	2	3	4	3	2	1	6	55	300 workers or more
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

Month of fatal accidents in commercial cleaning and livestock process in 1999-2021

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January	7		2	2	5	5	4	3	1	6	8	5	1	3	5	4	3	8	5	9	3	5		94	January
February	1	3	4	4	5	5	2	6	2	6	3	4	2	1	3	5	3		4	4	4	3	2	76	February
March	7	8	5	12	5	4	6	6	4	4	3	7	36	5	4	3	2	6	3	5	3	3	1	142	March
April	5	3	9	6	5	6	5	4	3	7	1	2	4	6	5	3	4	4	1	2	2	6	7	100	April
May	5	6	6	7	5	4	5	4	4	6	5	3	2	3	1	5	8	4	5	4	4	1	3	100	May
June	3	10	7	3	6	5	4	4	3	2	7	6	4	4	5	6	2	3	1	1	6	1	4	97	June

July	6	5	6	6	7	1	5	4	2	3	2	9	1	3	4	4	2	3	1	4	3	4	4	89	July
August	4	6	4	9	2	4	6	6	6	6	4	3	4	7	5	1	4		7	5	5	8	2	108	August
September	5	6	6	1	1	2	5	5	2	2	4	4	2	3	4	6	4	3	2	8	4	5	6	90	September
October	7	13	5	7	11	3	9	5	3	2	1	4	1	6	3	5	3	6	6	2	6	6	4	118	October
November	6	7	2	7	8	5	5	1	10	5	3	10	5	2	7	5	4	1	2	3	5	3	2	108	November
December	2	3	5	5	6	7	3	6	3	6	4	5	5	4	3	6	2	3	7	2	1	3	3	94	December
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

Prefecture of fatal accidents in commercial cleaning and livestock process in 1999-2021

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido	4	6	3	6	2	5	7	2	3	3	9	3	2	2		1	1		2	3	1	3	2	70	Hokkaido
Aomori		1	1				1	1		1									1			1	1	8	Aomori
Iwate		1	1					1	1	1			11	1	1	2	1			1		2		24	Iwate
Miyagi				1	2	2				1		2	18	1	1	1		1	2	1	1	1		35	Miyagi
Akita		2					1						1			1				1				6	Akita
Yamagata		1							1								1		1		1			5	Yamagata
Fukushima	2	1	2	1	1		2	4		1		1	2					1			1	1		20	Fukushima
Ibaraki		1	2	2	2	1	1	2	3		1	4	1	3	2		1	2	1	1		4	1	35	Ibaraki
Tochigi		1	2		3	1	1	1		1	1	2		1	2	2				1	2	1		22	Tochigi
Gunma	1	3	1	4	1	1	1	1	1		2			1	2		1	1		2			1	24	Gunma
Saitama	3	3	6	5	3	2	3	3	1	5	2	6	2	3	5	2	2	4	1	3	5	1	2	72	Saitama
Chiba	6	4	3	1	3	2	4	4	3	3	1			1	1	3	3	1	2	2	2	2	1	52	Chiba
Tokyo	6	11	5	5	10	7	6	3	10	4	4	7	6	6	6	7	6	4	7	4	8	2	4	138	Tokyo
Kanagawa		5	5	4	5	2	6	5		6	2	5	1	3	3	1	3	2	4	5	3	6	1	77	Kanagawa

Niigata	2	1	1	1	1	1					1	2	1		1	1	3		1		1		3	21	Niigata
Toyama	1		1		1	1					1	1	1					2		2		1		12	Toyama
Ishikawa	1	1	1		2	1				1	2			2		1	1	1						14	Ishikawa
Fukui	2					1	1					1				2			1					8	Fukui
Yamanashi					2										1									3	Yamanashi
Nagano	3	1	2	2	1		1		1	1		1	1				2		1	4				21	Nagano
Gifu		1	1	1	1			1	1	1		1	2	2	1				2					15	Gifu
Shizuoka	3	3	2	5	3	2	3	2	3	3		3			1	3	2			3	1	2		44	Shizuoka
Aichi	4	2	2	9	6	1	1	1	3	6	4	6	1	2		7	3	2	3	1	2	3		69	Aichi
Mie	1	1	2					1	1	1		1	3			1					2	1	1	16	Mie
Shiga		1	1										1	1		1		2						7	Shiga
Kyoto		1		2	1		4		2				1		2	1			1		1		3	19	Kyoto
Osaka	2	3	1	3	4	6	5	3	2	2	3	3	3		5	2	1	3	2	4	4	2	5	68	Osaka
Hyogo	6	5	3	3	1	3		3	1	2	2	2	1	2	2	2	6	3		2	2	2	4	57	Hyogo
Nara	1		1		1			2			1		1	1	1	1		1		1		3		15	Nara
Wakayama			3			1	1				1					1				1	1	1		10	Wakayama
Tottori		1										1	1											3	Tottori
Shimane		1	1										1			1		2						6	Shimane
Okayama	1	1		2			2	1			1			1	1			1			1	2		14	Okayama
Hiroshima	1	2		2	1	2	2	3	2	5		1	1	1	1	3	1	1	1	2	1	2	1	36	Hiroshima
Yamaguchi					1	2	1				2			1		2				1	1		1	12	Yamaguchi
Tokushima				1	1		1																	3	Tokushima
Kagawa		1				2			1	1		1			1									7	Kagawa
Ehime	1						2	1	1	2		1			2	2	1	3				1		17	Ehime

Kochi	1		1			1						1	1						2					7	Kochi
Fukuoka	4	3	4	4	1	1	1	1	1	1	2	2		5	5	1		1		1	2	1		41	Fukuoka
Saga								1				1							1					3	Saga
Nagasaki			1		2			2			1	1		2	1	1			1					12	Nagasaki
Kumamoto				2	2	1	1	2	1	1	1		1					2	1		1	1	1	18	Kumamoto
Oita		1		1	2	1		1		1			1		1				2			2		13	Oita
Miyazaki				1				1					1	1					1	2			1	8	Miyazaki
Kagoshima	2			1		1				1		1		2			1	1	2	1	2		4	19	Kagoshima
Okinawa			2					1			1	1		2			1		1				1	10	Okinawa
total	58	70	61	69	66	51	59	54	43	55	45	62	67	47	49	53	41	41	44	49	46	48	38	1,216	total

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

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