Fatal and non-fatal accidents in cement products in Japan in 1999-2022

cement products industry Code No.010901

Type of accidents in cement products 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	264	248	275	223	205	213	204	203	196	193	139	144	148	149	160	191	141	158	167	168	166	174	185	147	4,461
falling to same level	151	141	169	132	129	101	117	92	93	97	71	72	69	68	104	87	76	84	78	100	88	78	103	126	2,426
crash	75	73	82	69	50	61	60	57	55	39	38	25	28	41	35	42	39	40	29	41	38	38	40	46	1,141
struck by flying or falling object	171	148	154	147	112	102	93	97	93	82	65	61	58	58	69	74	41	49	46	59	48	53	46	47	1,973
collapse	61	73	58	51	40	38	32	46	35	36	18	33	21	26	33	20	26	27	25	19	16	21	19	24	798
crashed by	109	96	77	66	65	75	68	64	55	47	39	32	26	52	40	37	38	37	32	34	30	41	28	35	1,223
caught in/between	409	421	390	339	297	297	254	256	254	221	178	157	162	200	233	190	164	160	156	154	191	177	193	150	5,603
cut	35	35	31	37	31	29	24	21	21	26	20	10	13	16	18	15	26	19	16	11	21	18	9	14	516
injury to the sole of the foot	2	7	5	8	2	3		4	1	1	1	2	2		1	1		3	1	2	2			3	51
drown		1		1	1	1						1	2		1				2						10
contact to high/low-temperature	9	15	12	13	9	11	9	6	7	3	5	9	5	6	7	12	7	4	5	9	10	12	7	10	202

contact to harmful substance	3	5	1	1	4	3	4	6	4	5	2	3	5	1	2	1	1	2		6	6	4	3	1	73
electric shock	2	1	3		1	2	1	1				3			1		1			1		1	1		19
explosion	1			2	2						1														6
burst	2	1	2				1		2	1			1	1		1	1			1	2		1		17
fire					1	1			1						1		1			1					6
traffic accident (public road)	25	25	16	17	19	27	18	14	15	4	5	6	10	12	9	11	8	4	9	13	8	5	11	5	296
traffic accident (others)		2	2	1	1								1		1		1	1	1						11
reaction to motion/improper motion	82	72	82	74	70	52	60	43	57	59	52	44	40	43	37	46	43	47	47	54	46	52	57	54	1,313
others	3	7	2	5	4	7	5	5	6	3		2	5	3	2	1	1	2	4	3	3	3	24	3	103
unclassifiable	2		1	3	1	2	1	1		2	1	1							2	1	1		1		20
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Causal agents (large) of fatal and non-fatal accidents in cement products 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	181	187	181	160	156	145	139	135	105	128	84	90	82	102	121	88	87	71	76	75	93	95	81	79	2,741
crane, conveying	420	418	413	332	297	325	291	271	288	238	196	166	174	220	220	228	181	201	223	202	223	225	229	200	6,181

machine																									
other equipment	235	219	196	178	164	154	165	148	155	136	112	92	104	96	133	122	101	108	96	111	102	100	120	95	3,242
temporary buildings, establishments	214	227	240	207	189	173	163	162	144	142	113	115	107	114	119	138	112	120	101	145	144	131	143	157	3,620
substance, material	236	218	219	228	154	148	113	139	118	115	87	83	73	92	103	100	86	89	72	81	72	62	74	70	2,832
load	47	49	63	27	35	36	35	33	47	32	10	17	22	21	20	22	21	19	19	24	17	22	27	13	678
environment	24	17	21	22	16	19	18	11	16	7	7	24	19	16	22	15	10	13	13	19	12	15	10	25	391
others	49	36	29	35	33	25	27	17	22	21	26	18	15	15	16	16	17	16	20	20	13	27	44	26	583
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Causal agents (middle) of fatal and non-fatal accidents in cement products in 1999-2022

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	2022	total
engine																				1	2		1	1	5
power transmission mechanism	11	3	8	10	10	9	10	11	7	3	6	10	4	7	8	7	8	3	4	7	11	4	6	6	173
woodworking machine	11	7	7	10	13	9	4	5	4	9	7	2	3	6	1	7	5	5	8	4	5	5	4	4	145
construction machine	22	40	26	14	14	19	28	25	15	16	12	23	13	21	20	13	12	12	15	9	16	11	15	20	431

metal manufacturing machine	30	18	13	19	20	17	14	14	14	11	10	6	15	16	19	7	8	11	14	6	11	11	13	10	327
general machine	107	119	127	107	99	91	83	80	65	89	49	49	47	52	73	54	54	40	35	48	48	64	42	38	1,660
mobile silviculture machine																									
crane	87	91	81	53	49	64	42	53	57	57	26	30	28	40	30	34	25	30	24	24	45	35	31	31	1,067
conveying machine	326	309	321	271	237	243	238	212	224	177	167	131	142	175	185	189	150	167	192	171	168	185	191	163	4,934
vehicle	7	18	11	8	11	18	11	6	7	4	3	5	4	5	5	5	6	4	7	7	10	5	7	6	180
pressure vessel		2	2	2	2	2	3	1	2		1			1		1	1			1					21
chemical facilities							5			1															6
welding equipment	1	1	2	4	2		2	1	1	2	1	1		1		1	1	1		3	2	2	1		30
kiln, caldron	3		2		1		1	1	1						1	1		1		1		1			14
electric equipment	3	1	3	2	1	1	3	3			1	3			2	1	1	1				1	1	1	29
human power machine, tools	37	43	35	38	36	23	30	16	27	28	16	16	11	17	24	12	23	21	14	17	10	19	17	14	544
tools	117	121	104	85	81	87	78	97	74	72	60	49	58	46	79	61	47	52	45	59	59	56	69	54	1,710
other equipments, facilities	74	51	48	47	41	41	43	29	50	33	33	23	35	31	27	45	28	32	37	30	31	21	32	26	888
temporary																									

buildings, establishments	214	227	240	207	189	173	163	162	144	142	113	115	107	114	119	138	112	120	101	145	144	131	143	157	3,620
hazards, harmful substances	3	7	3	4	4	5	4	4	4	6	2	3	5	2	1	3	1	3		7	8	5	4	3	91
materials	233	211	216	224	150	143	109	135	114	109	85	80	68	90	102	97	85	86	72	74	64	57	70	67	2,741
load	47	49	63	27	35	36	35	33	47	32	10	17	22	21	20	22	21	19	19	24	17	22	27	13	678
natural environment	24	17	21	22	16	19	18	11	16	7	7	24	19	16	22	15	10	13	13	19	12	15	10	25	391
other causal agent	14	14	9	6	7	12	8	3	6	3	3	3	4	2	2	1	5	2	4	2	4	6	24	4	148
no causal agent	34	19	18	25	24	10	17	14	16	16	23	15	11	13	13	15	12	14	15	17	9	20	19	22	411
unclassifiable	1	3	2	4	2	3	2			2					1				1	1		1	1		24
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Causal agents (small) of fatal and non-fatal accidents in cement products 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	2		1	1	5
power transmission mechanism			8		10		10	11	7	3	6	10	4	7	8	7	8	3	4	7	11	4	6	6	140
circular sawing machine			6		9		2	4	4	5	6	1	2	4	1	7	5	2	5	3	5	3	2	4	80
band sawing machine			1									1													2

wood planer machine					1					1			1										1		4
hollow chisel mortiser, wood borer					1					1															2
chamfering machine, router, woodworking milling machine																									
chain saw							2			1									1						4
other woodworking machines					2			1		1	1			2				3	2	1		2	1		16
leveling, transporting or loading machine			9		5		7	4	2	5	2	10	5	7	8	3	6	4	6	1	6	1	5	4	100
excavating machine			8		3		11	8	9	2	3	6	1	5	6	3	4	2	4	4	8	4	2	9	102
foundation work machine								1																	1
hardening machine			1					1																1	3
demolition machine							2							1				1	3	1		1	2	1	12
vehicle for high lift work											1	1												1	3
other construction																									

machines			8		6		8	11	4	9	6	6	7	8	6	7	2	5	2	3	2	5	6	4	115
lathe			1										1												2
drill press, milling machine													2							1			3		6
grinding machine, buffing machine			6		6		4	6	4	6	6	4	6	6	12	3	3	6	5		7	5	3	5	103
power press			2		3		2	1	1				1	2	4		1			1	1				19
forging pressure hammer																									
shearing machine					2		1	1	1																5
other metal manufacturing machines			4		9		7	6	8	5	4	2	5	8	3	4	4	5	9	4	3	6	7	5	108
centrifugal machine			1		4		2	2		1			1	1	2		2		1		1	1		1	20
mixer, grinder			29		16		20	13	14	20	10	7	4	15	14	9	9	8	6	6	7	15	5	4	231
roll machine (except printingroll machine)			4				2	4	1	2		1	1		2		1	1	1	1	3	1	1	1	27
injection molding machine			1		1		2		1	1		1	1		4	1					2		2	1	18
food manufacturing machine																	1								1

printing machine												1					1								2
industrial robot							1		3									1							5
other general power machines			92		78		56	61	46	65	39	39	40	36	51	44	40	30	27	41	35	47	34	31	932
felling machine																									
mobile logging machine																									
skyline yarding machine																									
other mobile silviculture machine																									
crane			58		41		34	41	41	39	20	22	23	31	25	28	19	23	19	15	35	21	28	27	590
mobile crane			12		4		6	6	12	10	3	4	4	4	2	1	6	5	5	7	5	7	2	2	107
derrick crane																									
elevator, lift										1	1	1	1	1		1				1	2	2	1		12
cargo lifting appliance									1																1
gondola																									
lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									

other powered crane			11		4		2	6	3	7	2	3		4	3	4		2		1	3	5		2	62
truck			196		140		144	129	137	118	103	76	98	107	117	108	103	111	135	122	108	128	134	118	2,432
forklift			45		35		41	29	23	24	19	15	13	19	23	27	11	22	16	20	18	20	19	17	456
railway equipment			5		3		5	5	3	2	1	2		2	2	1	1	1	1	2	5	1	1		43
conveyor			48		41		30	27	33	23	26	23	15	31	28	37	23	25	22	16	20	22	23	19	532
loader					2		1	2	3	1	2	3	1	1	1	1	1	2	5		2	2	4	1	35
straddle carrier																									
rough terrain hauler								1	1		2							1							5
other powered conveying machines			27		16		17	19	24	9	14	12	15	15	14	15	11	5	13	11	15	12	10	8	282
cars, bus, motorcycle			11		8		11	6	7	3	3	5	3	5	4	2	5	3	5	6	6	3	7	5	108
railway vehicle																1									1
other vehicles					3					1			1		1	2	1	1	2	1	4	2		1	20
boiler			1																						1
pressure vessel			1		1		2		1		1						1								7
other pressure vessels					1		1	1	1					1		1				1					7
chemical facilities							5			1															6
gas welding equipment					1				1													1			3

arc welding equipment							2	1		1	1	1		1		1		1		2	1				12
other welding equipment			2		1					1							1			1	1	1	1		9
kiln, caldron			1												1	1		1				1			5
industrial dryer			1		1		1													1					4
other kiln, caldron								1	1																2
transmission			2					3				1			1			1				1		1	10
electric power facilities			1								1						1						1		4
other electrical equipment					1		3					2			1	1									8
human power cranes					1		2		2	1		1	1		2						1		2		13
human power hauling equipment			7		7		6	2	2	6	3	2	3	3	6	4	6	4	2	2		8	2		75
human power machine			1		2			1				1	2		1	1	1	1		1	1	2	1	2	18
hand tool			27		26		22	13	23	21	13	12	5	14	15	7	16	16	12	14	8	9	12	12	297
ladder			36		30		30	34	26	28	17	18	18	18	26	27	19	19	18	28	22	14	31	21	480
slinging tool			14		12		13	17	13	7	19	7	14	8	15	7	7	10	6	7	10	10	12	8	216
other tools			54		39		35	46	35	37	24	24	26	20	38	27	21	23	21	24	27	32	26	25	604

other equipment, facilities			48		41		43	29	50	33	33	23	35	31	27	45	28	32	37	30	31	21	32	26	675
scaffolding			14		10		6	7	9	8	6	3	2	4	4	8	3	5	1	8	2	6	2	2	110
timbering			12		10		10	4	6	9	5	4	7	9	5	8	6	4	2	4	6	7	5	2	125
stairs, landing stage			25		18		14	14	17	18	6	6	16	7	11	14	10	10	7	18	15	15	11	15	267
opening			9		2		4	5	2	3	1	5	2	4	2	2		2		3	1	2	5	2	56
roof, beam, haze, crossbeam, principal rafter			6		4		2	2	2	4	4	3	4	3	2	3	1	3	3	3	2	2	2	2	57
working platform, boot board			45		33		28	24	26	25	18	19	18	18	17	28	20	25	19	18	20	18	11	20	450
passage			55		47		42	35	36	39	29	25	27	31	32	30	35	39	36	50	43	42	60	65	798
building, establishment			40		32		24	38	26	19	30	34	17	23	25	19	21	23	18	22	23	21	21	27	503
other temporary buildings, establishments			34		33		33	33	20	17	14	16	14	15	21	26	16	9	15	19	32	18	26	22	433
explosive substance																									
inflammable substance			1		1		1	1	1					1						1	2			1	10
inflammable gas																1						1			2
harmful substance			1		1		2	1	2	1	2	1	1		1	1	1	2		2	3	1		1	24
radiation																									

other hazards, harmful substances			1		2		1	2	1	5		2	4	1		1		1		4	3	3	4	1	36
metal material			94		72		50	65	64	54	46	36	34	48	53	59	34	45	36	35	32	32	31	33	953
lumber, bamboo			22		14		14	9	15	15	6	9	4	3	8	5	10	9	6	2	8	6	9	8	182
stone, sand, substance			31		28		18	19	13	17	10	10	6	14	11	13	12	12	7	12	7	7	7	9	263
other materials			69		36		27	42	22	23	23	25	24	25	30	20	29	20	23	25	17	12	23	17	532
load			61		30		31	28	41	30	9	16	21	19	19	18	17	16	18	23	17	18	26	13	471
machine/equipment as load			2		5		4	5	6	2	1	1	1	2	1	4	4	3	1	1		4	1		48
natural ground, rock			2		4		5	1	8	3	1	3	1	2	2	1	3	3		2	1	1		1	44
standing tree					1			1			1	1		1			1					2	1		9
water			1		1		1	1					1		1		1			1					8
abnormal environment			1						1					1	1	1						1			6
high/cold temperature environment			4		3		2	3	6	1	1	8	3	4	5	7	1	2	5	7	6	8	1	9	86
other environments			13		7		10	5	1	3	4	12	14	8	13	6	4	8	8	9	5	3	8	15	156
other causal agent			9		7		8	3	6	3	3	3	4	2	2	1	5	2	4	2	4	6	24	4	102
no causal agent			18		24		17	14	16	16	23	15	11	13	13	15	12	14	15	17	9	20	19	22	323

unclassifiable			2		2		2			2					1				1	1		1	1		13
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Workers age of fatal and non-fatal accidents in cement products 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	23	27	23	15	17	16	12	14	8	10	8	4	9	17	10	8	7	3	11	4	10	7	9	5	277
20-29	183	195	192	141	122	118	108	108	90	76	47	51	48	74	80	75	63	55	52	60	52	55	75	60	2,180
30-39	224	221	200	204	189	188	162	195	164	147	118	129	97	118	128	113	91	79	99	83	83	105	91	80	3,308
40-49	296	298	296	260	214	219	166	168	181	175	123	135	127	144	177	194	125	146	121	158	168	151	153	128	4,323
50-59	517	450	488	441	356	346	353	282	327	267	213	170	183	179	204	169	164	176	181	181	176	175	206	204	6,408
60 years old or more	163	180	163	128	146	138	150	149	125	144	126	116	132	144	155	170	165	178	156	191	187	184	194	188	3,772
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Workers' number of workplace of fatal and non-fatal accidents in cement products 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	223	214	236	223	209	204	185	203	152	154	120	108	107	121	137	129	98	110	87	93	104	100	117	98	3,532
10-29	602	614	648	560	490	537	461	403	444	395	323	317	323	349	367	345	302	321	318	367	350	355	363	346	9,900
30-49	320	325	260	240	196	161	174	196	176	168	112	105	96	121	172	158	133	126	137	132	143	142	152	150	4,095
50-99	187	172	158	123	119	96	106	92	92	71	62	54	46	66	62	76	56	64	61	65	54	62	63	52	2,059

100-299	69	42	57	39	26	27	22	19	28	24	14	18	21	16	12	14	22	14	14	18	21	12	28	13	590
300 workers or more	5	4	3	4	4		3	3	3	7	4	3	3	3	4	7	4	2	3	2	4	6	5	6	92
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Month of fatal and non-fatal accidents in cement products 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	109	117	131	111	91	92	63	75	87	81	58	66	68	65	60	76	51	56	63	84	61	54	73	54	1,846
February	123	143	125	121	97	106	83	93	65	79	54	51	46	82	64	65	41	46	46	61	57	52	75	59	1,834
March	111	125	125	114	77	84	77	76	82	77	66	41	47	45	70	52	51	47	43	50	69	52	73	49	1,703
April	111	95	106	85	71	65	78	72	70	59	60	53	47	47	61	59	51	57	49	40	50	53	48	60	1,547
May	107	101	105	101	78	70	73	67	71	59	53	54	28	48	66	55	52	39	51	59	45	53	58	41	1,534
June	115	121	115	85	85	96	82	62	74	78	43	53	59	56	47	57	59	46	50	55	58	59	60	58	1,673
July	136	114	113	105	86	102	89	77	79	50	44	40	48	60	77	67	58	51	58	67	47	77	69	62	1,776
August	103	109	113	83	91	83	89	65	70	67	49	56	59	61	50	56	52	65	61	47	53	69	61	57	1,669
September	135	119	113	101	107	80	77	68	64	71	55	45	47	49	67	63	52	61	53	59	58	38	39	52	1,673
October	125	94	122	95	93	80	73	99	81	71	58	52	54	53	76	65	55	66	46	62	59	64	61	60	1,764
November	125	121	96	112	81	85	95	81	86	66	41	55	42	52	72	50	43	47	48	55	56	52	51	52	1,664
December	106	112	98	76	87	82	72	81	66	61	54	39	51	58	44	64	50	56	52	38	63	54	60	61	1,585
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

Prefecture of fatal and non-fatal accidents in cement products in 1999-2022

Prefecture	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
Hokkaido	134	129	113		81		79	66	53	39	30	33	35	32	57	44	30	30	46	37	35	32	41	54	1,230
Aomori	17	11	7		17		4	12	7	6	6	5	7	8	3	3	6	6	3	10	6	9	5	7	165
Iwate	32	16	20		18		17	19	7	14	10	9	4	7	9	15	6	17	10	10	7	3	15	5	270
Miyagi	16	23	21		17		16	9	11	10	3	8	10	16	24	19	11	16	10	17	16	16	9	15	313
Akita	14	20	12		6		8	6	5	11	9	8	7	5	14	5	4	3	7	3	10	6	4	3	170
Yamagata	18	21	22		11		9	10	1	9	6	8	7	10	10	5	9	11	11	7	10	14	14	4	227
Fukushima	33	32	34		14		21	16	17	13	11	14	16	19	20	18	18	21	13	18	17	21	32	26	444
Ibaraki	64	66	64		49		38	28	37	55	24	31	27	31	43	40	25	36	24	34	30	34	35	26	841
Tochigi	32	24	27		22		19	23	22	16	16	17	13	18	13	12	19	26	16	21	19	15	23	20	433
Gunma	45	51	36		16		36	24	28	17	24	15	14	21	19	27	17	22	15	20	15	19	21	14	516
Saitama	47	34	45		45		47	39	42	36	19	26	30	29	34	23	39	28	35	37	29	21	44	25	754
Chiba	39	33	25		28		23	25	32	28	26	24	17	26	15	29	18	20	21	23	20	20	25	27	544
Tokyo	23	20	18		11		17	13	12	16	9	6	12	13	10	12	5	9	16	13	10	7	10	7	269
Kanagawa	35	42	30		25		26	25	31	23	20	13	15	12	23	18	10	10	13	13	21	18	17	18	458
Niigata	22	27	23		18		27	26	27	16	12	24	9	12	27	26	21	15	15	13	21	21	25	15	442
Toyama	18	6	14		11		9	9	8	8	13	9	4	5	4	10	1	6	6	7	7	8	6	7	176
Ishikawa	15	11	12		7		10	9	7	8	4	3	6	5	5	3	5	5	6	2	4	3	4	5	139
Fukui	23	16	15		17		15	13	7	12	10	4	16	10	6	13	7	9	9	18	11	10	3	10	254
Yamanashi	16	16	13		10		8	12	12	7	3	5	8	13	13	14	8	8	9	8	6	4	7	8	208

Nagano	29	29	23		23		13	18	19	14	8	17	11	19	14	14	11	12	15	11	11	10	12	15	348
Gifu	43	29	30		40		28	22	16	21	15	13	9	12	17	21	14	12	14	11	12	16	8	6	409
Shizuoka	34	21	20		17		15	25	32	26	23	16	21	20	23	13	15	11	20	17	15	12	18	20	434
Aichi	42	51	54		29		28	30	33	41	24	29	12	27	28	30	33	25	25	23	34	28	32	18	676
Mie	43	42	58		40		35	41	40	23	22	20	20	20	13	27	22	16	14	11	14	15	24	19	579
Shiga	21	27	22		37		23	23	15	34	9	12	11	8	16	12	15	11	12	12	14	8	9	9	360
Kyoto	22	21	16		15		17	7	11	6	18	10	12	12	10	8	7	9	6	9	4	6	11	5	242
Osaka	26	28	48		26		23	30	32	17	18	14	15	11	16	14	8	18	8	13	8	14	16	8	411
Hyogo	47	55	53		42		28	27	35	26	17	12	19	17	21	20	16	23	16	16	17	24	20	19	570
Nara	15	22	15		12		11	12	6	11	6	4	3	9	7	7	3	5	3	7	7	4	3	2	174
Wakayama	22	8	22		13		16	9	17	14	7	8	10	19	11	14	10	7	6	12	10	12	13	4	264
Tottori	6	2	6		6		6	5	1	1	3	8	4	4	1	5	3	2	1	5	2	4	6	4	85
Shimane	15	10	11		12		3	9	9	8	5	10	6	5	5	10	5	2	6	3	5	6	3	4	152
Okayama	33	31	26		25		21	27	25	15	11	12	12	20	22	18	10	11	21	14	19	18	16	20	427
Hiroshima	38	39	42		22		27	29	12	30	13	9	14	14	16	16	11	20	16	17	26	14	27	21	473
Yamaguchi	19	11	19		21		9	14	17	14	6	11	11	10	7	10	7	13	6	7	11	7	10	10	250
Tokushima	18	19	16		8		6	5	6	6	6	4	3	5	4	6	11	5	13	7	8	5	6	6	173
Kagawa	18	17	26		13		13	19	6	12	11	6	13	15	14	11	6	12	10	9	6	15	9	11	272
Ehime	19	31	29		26		14	25	17	17	10	9	8	15	12	10	7	11	11	17	15	15	10	12	340
Kochi	11	34	28		21		12	5	3	14	12	8	8	4	7	5	10	7	6	10	6	12	9	9	241
Fukuoka	65	81	74		53		50	41	54	38	38	39	38	32	46	34	49	26	29	32	39	47	37	40	982

Saga	19	18	9		11		12	10	17	11	10	5	10	9	13	6	10	6	2	10	5	7	8	8	216
Nagasaki	24	23	22		16		13	9	11	6	9	5	6	11	15	16	9	13	13	13	12	12	6	13	277
Kumamoto	34	28	29		26		33	23	32	20	19	22	16	20	19	19	22	26	23	25	35	28	26	25	550
Oita	31	33	26		16		16	14	10	16	14	13	13	12	15	16	9	12	9	16	11	13	15	16	346
Miyazaki	30	26	31		14		20	10	15	12	17	10	8	8	9	9	11	7	5	11	10	13	12	10	298
Kagoshima	29	25	47		29		26	32	22	15	18	12	19	22	17	11	17	13	16	17	14	18	18	16	453
Okinawa	10	12	9		8		4	11	16	7	11	5	7	4	7	11	5	4	9	11	12	13	4	19	199
total	1,406	1,371	1,362	1,189	1,044	1,025	951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	665	20,268

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)

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

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Fatal accidents in cement products in Japan in 1999-2022

cement products industry Code No.010901

Type of fatal accidents in cement products 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	7	5	5	2	2	5	2	3	1	3	3	4	4	1	1	2	3	2	3		1	2	3	1	65
falling to same level										1		2	1		1					1					6
crash								1																	1
struck by flying or falling object	2			1	1		4	1			1			1					1		1		1		14
collapse	2	4	1	1	1	1	4	2	4	2		2		4		2	2	1	4	2	1				40
crashed by	2	1	1	1		1	3	1		2		1				1			1	2				1	18
caught in/between	12	10	14	4	5	9	3	1	5	3	3	4	3	5	4	3	3	2	4	7	4	2	2	2	114
cut																									
injury to the sole of the foot																									
drown		2		1	1							1	2		1				2						10
contact to high/low-temperature									1			1										1			3
contact to harmful substance																									
electric shock	2	1					1						1												5
explosion																									
burst	1																								1
fire																									
traffic accident (public	2	2	4	4	3	3	1	1	2	3	1	1	1	1	1	1				1		1			33

road)																									
traffic accident (others)																									
reaction to motion/improper motion																									
others					1	1							1						1			1			5
unclassifiable												1													1
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Causal agents (large) of fatal accidents in cement products 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	12	7	7	1	1	6	5	1	1	4	2	3	1	3	3	2	2	2	1	3	2	1	3	1	74
crane, conveying machine	10	6	9	9	9	9	4	1	6	6	3	5	5	2	5	4	2	2	7	7	4	4	3	2	124
other equipment	3	4	1		2		3	3	2	2	1		1	1		1	1		1	1					27
temporary buildings, establishments	2	5	3	2	1	3	1	3	1		1	8	1	3		1	1		4		1			1	42
substance, material	1	2	2				3	1		1	1		2	3		1	2	1	1	2					23
load	1		3	1		1	2	1	2										1						12
environment	1	1		1		1			1	1		1	3									1			11
others					1														1			1			3

total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Causal agents (middle) of fatal accidents in cement products in 1999-2022

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	2022	total
engine																									
power transmission mechanism	1																								1
woodworking machine																									
construction machine	2	2				2	1			1	1	1			1	1	2				1				15
metal manufacturing machine																									
general machine	9	5	7	1	1	4	4	1	1	3	1	2	1	3	2	1		2	1	3	1	1	3	1	58
mobile silviculture machine																									
crane	2	1			1	2	1			2	1	1	2							1	1	1			16
conveying machine	8	5	8	9	5	7	3	1	6	3	2	4	3	2	5	4	2	2	5	6	3	3	3	2	101
vehicle			1		3					1									2						7
pressure vessel		1																							1
chemical facilities																									
welding equipment																									
kiln, caldron																									

electric equipment		1					1						1												3
human power machine, tools		1																							1
tools	3	1			1		1	3		1									1						11
other equipments, facilities			1		1		1		2	1	1			1		1	1			1					11
temporary buildings, establishments	2	5	3	2	1	3	1	3	1		1	8	1	3		1	1		4		1			1	42
hazards, harmful substances																									
materials	1	2	2				3	1		1	1		2	3		1	2	1	1	2					23
load	1		3	1		1	2	1	2										1						12
natural environment	1	1		1		1			1	1		1	3									1			11
other causal agent					1																	1			2
no causal agent																			1						1
unclassifiable																									
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Causal agents (small) of fatal accidents in cement products 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																									

power transmission mechanism	1																								1
circular sawing machine																									
band sawing machine																									
wood planer machine																									
hollow chisel mortiser, wood borer																									
chamfering machine, router, woodworking milling machine																									
chain saw																									
other woodworking machines																									
leveling, transporting or loading machine	1	1				1	1			1	1	1				1					1				9
excavating machine	1					1									1		2								5
foundation work machine																									
hardening machine																									
demolition machine																									
vehicle for high lift work																									
other construction machines		1																							1

lathe																									
drill press, milling machine																									
grinding machine, buffing machine																									
power press																									
forging pressure hammer																									
shearing machine																									
other metal manufacturing machines																									
centrifugal machine			1																						1
mixer, grinder	4	3	2	1	1	1	1			3	1			2	1	1		1		1					23
roll machine (except printingroll machine)																									
injection molding machine																					1				1
food manufacturing machine																									
printing machine																									
industrial robot						1			1																2

other general power machines	5	2	4			2	3	1				2	1	1	1			1	1	2		1	3	1	31
felling machine																									
mobile logging machine																									
skyline yarding machine																									
other mobile silviculture machine																									
crane	2	1			1	1				1		1	1							1	1				10
mobile crane						1	1			1												1			4
derrick crane																									
elevator, lift											1		1												2
cargo lifting appliance																									
gondola																									
lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane																									
truck	2	3	3	5	2	6	2	1	3	2	1	2	1	1	2	2	1	2	2	2	2	3	3		53
forklift	4	1	3	1			1			1		1	1		2	1				1	1			1	19
railway equipment																									
conveyor	2	1	2	3	2	1			3		1	1			1				1	3				1	22

loader													1												1
straddle carrier																									
rough terrain hauler																									
other powered conveying machines					1									1		1	1		2						6
cars, bus, motorcycle			1		2					1															4
railway vehicle																									
other vehicles					1														2						3
boiler																									
pressure vessel		1																							1
other pressure vessels																									
chemical facilities																									
gas welding equipment																									
arc welding equipment																									
other welding equipment																									
kiln, caldron																									
industrial dryer																									
other kiln, caldron																									
transmission		1																							1
electric power facilities													1												1
other electrical																									

equipment							1																		1
human power cranes																									
human power hauling equipment																									
human power machine																									
hand tool		1																							1
ladder										1															1
slinging tool	1				1		1	2																	5
other tools	2	1						1											1						5
other equipment, facilities			1		1		1		2	1	1			1		1	1			1					11
scaffolding												1													1
timbering																									
stairs, landing stage																									
opening		1				1																			2
roof, beam, haze, crossbeam, principal rafter			1											1											2
working platform, boot board								1					1			1									3
passage												1													1
building, establishment	2	4	2	2	1	2	1	2	1		1	4		2			1		3					1	29

other temporary buildings, establishments												2							1		1				4
explosive substance																									
inflammable substance																									
inflammable gas																									
harmful substance																									
radiation																									
other hazards, harmful substances																									
metal material			1					1		1										1					4
lumber, bamboo																									
stone, sand, substance	1	2	1				2						2	1		1	1	1		1					13
other materials							1				1			2			1		1						6
load	1		3	1		1	2	1	2										1						12
machine/equipment as load																									
natural ground, rock	1	1								1															3
standing tree																									
water				1									3												4
abnormal environment																									
high/cold temperature																									

environment						1			1			1										1			4
other environments																									
other causal agent					1																	1			2
no causal agent																			1						1
unclassifiable																									
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Workers age of fatal accidents in cement products 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																			1				1		2
20-29	5	3	3	1		2	3			1										1				1	20
30-39	3	4	1	2	2	2	2	1	2	1	2	2	1	4	2	1	1	1	2	1			1		38
40-49	4	2	2	1	2	4	1	3	3		1	3	1	3	1	1	1		2	4	1		1	1	42
50-59	9	9	13	7	7	11	7	4	4	8	2	8	6	4	3	4	2	3	8	5	2	3	1	1	131
60 years old or more	9	7	6	3	3	1	5	2	4	4	3	4	5	1	2	3	4	1	3	2	4	4	2	1	83
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Workers' number of workplace of fatal accidents in cement products 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	3	4	5	3	2	2	1	1	3	7	1	7	9		3	1	1	1	1	2		1	1	2	61

10-29	13	9	14	5	5	12	11	4	7	5	3	9	3	9	4	5	6	3	12	10	5	5	3		162
30-49	5	7	3	3	4	4	1	3	2	2	3	1		1	1	2		1	2	1	1	1	1	2	51
50-99	5	5	3	2	3	1	5	1	1		1		1	1		1	1		1		1		1		34
100-299	2			1		1								1											5
300 workers or more	2							1																	3
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Month of fatal accidents in cement products 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	5		4	4		1	1		1	2		1		4	1	1			2	1		1		1	30
February	2	1	1	2		2		2		1		2				1			2	3					19
March	3	4	2	1	4	1	3	1	2	3	1		1				2	1	1				2		32
April	2		3	1	2	1		2	1		1		2		2			1	2			1	1		22
May	1	3	3	1	1	1	4		1	1	1	4	1	2	1	1	3		3		2		1	1	36
June	2	2	2	3		2	2		1	1		2	1	1		1				1		2			23
July	2	2		1	3	2		1			1	1		2		1	1	1	1	1	1		1		22
August	5	5	2		2	1	1		4	2	1	4	1		1	1	1	1	2	2		1	1		38
September	2	4	2				3		1		1	3	3	1	1										21
October	2	2	4			1	2	3		2	2			1	1	1	1	1		3				2	28
November	3		2	1		7			1	1			1		1				1		3	1			22

December	1	2			2	1	2	1	1	1			3	1		2			2	2	1	1			23
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

Prefecture of fatal accidents in cement products in 1999-2022

Prefecture	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
Hokkaido			2	1	3		1		2	2		1								2	1				15
Aomori																		1		1			1		3
Iwate	2			1									2				1		1						7
Miyagi		1	1			2												1							5
Akita						1													1						2
Yamagata	1			3		2				1							1								8
Fukushima	2					1	1					1			1									1	7
Ibaraki	1		1				1					1		1		2					1				8
Tochigi			1	1			1															1		1	5
Gunma	1		1				1			1						1				1			1		7
Saitama			1							1	1	1		2		1					1				8
Chiba		2		1	1	1	1						1						1	1	1				10
Tokyo	1	1					1					1	2										1		7
Kanagawa	3	1	3				2							1		1						1	1		13
Niigata		1						1	1																3
Toyama							1	1																	2

Ishikawa	1					1		1			1														4
Fukui	1		1			1				2					2					1		1			9
Yamanashi			1	1				1					1							1					5
Nagano		1					1					1					1		1					1	6
Gifu	1	1	1		2	1		1			2	1			1	1			1						13
Shizuoka	2	1			1	1	1					2			1				2		1	1		1	14
Aichi	1	1	1		1	1			2			1		1	1			1		1		1			13
Mie			1		1	1	2	1	1					2		1	2			1					13
Shiga	2	1					1			1															5
Kyoto		2							1			1							1						5
Osaka								2		1			1						1		1				6
Hyogo		1	1	1	3	2			2	1						1	1	1		1					15
Nara																									
Wakayama			3										2										1		6
Tottori		1					1																		2
Shimane	1			1									1												3
Okayama		2			1																				3
Hiroshima	1	1								1	1					1				1			1		7
Yamaguchi	1			1							1	1			1		1								6
Tokushima		1																							1
Kagawa													1					1				1			3

Ehime	1	1				1				1				2					1						7
Kochi	1	1	2			1									1		1			2					9
Fukuoka	2	3	1	1	1	1	1					1	2						2			1			16
Saga			1								1														2
Nagasaki				1			1												1						3
Kumamoto		1	2			1			1	1		1		1											8
Oita	1			1				1	1			1							2						7
Miyazaki	1					1					1	2													5
Kagoshima	2							1	1	1				2							1				8
Okinawa									1										1						2
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	4	316

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

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