



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	72	contact to harmful substance
electric shock	2	1	3		1	2	1	1				3			1		1			1		1	1	19	electric shock
explosion	1			2	2						1													6	explosion
burst	2	1	2				1		2	1			1	1		1	1			1	2		1	17	burst
fire					1	1			1						1		1			1				6	fire
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	291	traffic accident (public road)
traffic accident (others)		2	2	1	1								1		1		1	1	1					11	traffic accident (others)
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	1,259	reaction to motion/improper motion
others	3	7	2	5	4	7	5	5	6	3		2	5	3	2	1	1	2	4	3	3	3	24	100	others
unclassifiable	2		1	3	1	2	1	1		2	1	1							2	1	1		1	20	unclassifiable
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	19,603	total

Causal agents (large) of fatal and non-fatal accidents in cement products 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	181	187	181	160	156	145	139	135	105	128	84	90	82	102	121	88	87	71	76	75	93	95	81	2,662	machine
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	5,981	crane, conveying

machine																										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	3,147	other equipment	
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	3,463	temporary buildings, establishments	
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	2,762	substance, material	
load	47	49	63	27	35	36	35	33	47	32	10	17	22	21	20	22	21	19	19	24	17	22	27	665	load	
environment	24	17	21	22	16	19	18	11	16	7	7	24	19	16	22	15	10	13	13	19	12	15	10	366	environment	
others	49	36	29	35	33	25	27	17	22	21	26	18	15	15	16	16	17	16	20	20	13	27	44	557	others	
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	19,603	total	

Causal agents (middle) of fatal and non-fatal accidents in cement products 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																				1	2		1	4	engine
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	167	power transmission mechanism
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	141	woodworking machine
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	411	construction machine



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	862	equipments, facilities
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	3,463	temporary buildings, establishments
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	88	hazards, harmful substances
materials	233	211	216	224	150	143	109	135	114	109	85	80	68	90	102	97	85	86	72	74	64	57	70	2,674	materials
load	47	49	63	27	35	36	35	33	47	32	10	17	22	21	20	22	21	19	19	24	17	22	27	665	load
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	366	natural environment
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	144	other causal agent
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	389	no causal agent
unclassifiable	1	3	2	4	2	3	2			2					1				1	1		1	1	24	unclassifiable
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	19,603	total

Causal agents (small) of fatal and non-fatal accidents in cement products 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	2		1	4	engine
power transmission			8		10		10	11	7	3	6	10	4	7	8	7	8	3	4	7	11	4	6	134	power transmission

mechanism																									mechanism
circular sawing machine			6		9		2	4	4	5	6	1	2	4	1	7	5	2	5	3	5	3	2	76	circular sawing machine
band sawing machine			1									1												2	band sawing machine
wood planer machine					1					1		1										1	4	wood planer machine	
hollow chisel mortiser, wood borer					1					1														2	hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																									chamfering machine, router, woodworking milling machine
chain saw							2			1								1						4	chain saw
other woodworking machines					2			1		1	1			2				3	2	1		2	1	16	other woodworking machines
leveling, transporting or loading machine			9		5		7	4	2	5	2	10	5	7	8	3	6	4	6	1	6	1	5	96	leveling, transporting or loading machine
excavating machine			8		3		11	8	9	2	3	6	1	5	6	3	4	2	4	4	8	4	2	93	excavating machine
foundation work machine								1																1	foundation work machine
hardening machine			1					1																2	hardening machine
demolition machine							2						1				1	3	1		1	2	11	demolition machine	

vehicle for high lift work										1	1												2	vehicle for high lift work	
other construction machines			8		6		8	11	4	9	6	6	7	8	6	7	2	5	2	3	2	5	6	111	other construction machines
lathe			1									1											2	lathe	
drill press, milling machine												2							1			3	6	drill press, milling machine	
grinding machine, buffing machine			6		6		4	6	4	6	6	4	6	6	12	3	3	6	5		7	5	3	98	grinding machine, buffing machine
power press			2		3		2	1	1			1	2	4		1			1	1			19	power press	
forging pressure hammer																								forging pressure hammer	
shearing machine					2		1	1	1														5	shearing machine	
other metal manufacturing machines			4		9		7	6	8	5	4	2	5	8	3	4	4	5	9	4	3	6	7	103	other metal manufacturing machines
centrifugal machine			1		4		2	2		1		1	1	2		2		1		1	1		19	centrifugal machine	
mixer, grinder			29		16		20	13	14	20	10	7	4	15	14	9	9	8	6	6	7	15	5	227	mixer, grinder
roll machine (except printingroll machine)			4				2	4	1	2		1	1		2		1	1	1	1	3	1	1	26	roll machine (except printingroll machine)
injection molding machine			1		1		2		1	1		1	1		4	1					2		2	17	injection molding machine
food manufacturing																	1						1	food manufacturing	

machine																									machine
printing machine											1					1								2	printing machine
industrial robot						1		3								1								5	industrial robot
other general power machines			92		78		56	61	46	65	39	39	40	36	51	44	40	30	27	41	35	47	34	901	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			58		41		34	41	41	39	20	22	23	31	25	28	19	23	19	15	35	21	28	563	crane
mobile crane			12		4		6	6	12	10	3	4	4	4	2	1	6	5	5	7	5	7	2	105	mobile crane
derrick crane																									derrick crane
elevator, lift										1	1	1	1	1		1				1	2	2	1	12	elevator, lift
cargo lifting appliance									1															1	cargo lifting appliance
gondola																									gondola
lumberyard equipment, logging cableway																									lumberyard equipment, logging cableway
simple skyline yarding equipment																									simple skyline yarding equipment



other powered crane			11	4	2	6	3	7	2	3		4	3	4		2		1	3	5		60	other powered crane	
truck			196	140		144	129	137	118	103	76	98	107	117	108	103	111	135	122	108	128	134	2,314	truck
forklift			45	35		41	29	23	24	19	15	13	19	23	27	11	22	16	20	18	20	19	439	forklift
railway equipment			5	3		5	5	3	2	1	2		2	2	1	1	1	1	2	5	1	1	43	railway equipment
conveyor			48	41		30	27	33	23	26	23	15	31	28	37	23	25	22	16	20	22	23	513	conveyor
loader				2		1	2	3	1	2	3	1	1	1	1	1	2	5		2	2	4	34	loader
straddle carrier																								straddle carrier
rough terrain hauler							1	1		2							1						5	rough terrain hauler
other powered conveying machines			27	16		17	19	24	9	14	12	15	15	14	15	11	5	13	11	15	12	10	274	other powered conveying machines
cars, bus, motorcycle			11	8		11	6	7	3	3	5	3	5	4	2	5	3	5	6	6	3	7	103	cars, bus, motorcycle
railway vehicle															1								1	railway vehicle
other vehicles				3					1			1		1	2	1	1	2	1	4	2		19	other vehicles
boiler			1																				1	boiler
pressure vessel			1	1		2		1		1						1							7	pressure vessel
other pressure vessels				1		1	1	1					1		1				1				7	other pressure vessels
chemical facilities						5			1														6	chemical facilities
gas welding equipment				1				1													1		3	gas welding equipment
arc welding equipment						2	1		1	1	1		1		1		1		2	1			12	arc welding equipment

other welding equipment			2	1					1						1			1	1	1	1	9	other welding equipment	
kiln, caldron			1											1	1		1				1		5	kiln, caldron
industrial dryer			1	1		1												1					4	industrial dryer
other kiln, caldron							1	1															2	other kiln, caldron
transmission			2				3				1			1			1				1		9	transmission
electric power facilities			1							1						1						1	4	electric power facilities
other electrical equipment					1		3				2			1	1								8	other electrical equipment
human power cranes					1		2		2	1		1	1		2					1		2	13	human power cranes
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 hauling equipment
human power machine			1	2			1				1	2		1	1	1	1		1	1	2	1	16	human power machine
hand tool			27	26		22	13	23	21	13	12	5	14	15	7	16	16	12	14	8	9	12	285	hand tool
ladder			36	30		30	34	26	28	17	18	18	18	26	27	19	19	18	28	22	14	31	459	ladder
slinging tool			14	12		13	17	13	7	19	7	14	8	15	7	7	10	6	7	10	10	12	208	slinging tool
other tools			54	39		35	46	35	37	24	24	26	20	38	27	21	23	21	24	27	32	26	579	other tools
other equipment, facilities			48	41		43	29	50	33	33	23	35	31	27	45	28	32	37	30	31	21	32	649	other equipment, facilities
scaffolding			14	10		6	7	9	8	6	3	2	4	4	8	3	5	1	8	2	6	2	108	scaffolding
timbering			12	10		10	4	6	9	5	4	7	9	5	8	6	4	2	4	6	7	5	123	timbering

stairs, landing stage			25		18		14	14	17	18	6	6	16	7	11	14	10	10	7	18	15	15	11	252	stairs, landing stage	
opening			9		2		4	5	2	3	1	5	2	4	2	2		2		3	1	2	5	54	opening	
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	55	roof, beam, haze, crossbeam, principal rafter	
working platform, boot board			45		33		28	24	26	25	18	19	18	18	17	28	20	25	19	18	20	18	11	430	working platform, boot board	
passage			55		47		42	35	36	39	29	25	27	31	32	30	35	39	36	50	43	42	60	733	passage	
building, establishment			40		32		24	38	26	19	30	34	17	23	25	19	21	23	18	22	23	21	21	476	building, establishment	
other temporary buildings, establishments			34		33		33	33	20	17	14	16	14	15	21	26	16	9	15	19	32	18	26	411	other temporary buildings, establishments	
explosive substance																										explosive substance
inflammable substance			1		1		1	1	1					1						1	2			9	inflammable substance	
inflammable gas																1						1		2	inflammable gas	
harmful substance			1		1		2	1	2	1	2	1	1		1	1	1	2		2	3	1		23	harmful substance	
radiation																										radiation
other hazards, harmful substances			1		2		1	2	1	5		2	4	1		1		1		4	3	3	4	35	other hazards, harmful substances	
metal material			94		72		50	65	64	54	46	36	34	48	53	59	34	45	36	35	32	32	31	920	metal material	
lumber, bamboo			22		14		14	9	15	15	6	9	4	3	8	5	10	9	6	2	8	6	9	174	lumber, bamboo	
stone, sand,			31		28		18	19	13	17	10	10	6	14	11	13	12	12	7	12	7	7	7	254	stone, sand,	

substance																										substance
other materials			69		36		27	42	22	23	23	25	24	25	30	20	29	20	23	25	17	12	23	515	other materials	
load			61		30		31	28	41	30	9	16	21	19	19	18	17	16	18	23	17	18	26	458	load	
machine/equipment as load			2		5		4	5	6	2	1	1	1	2	1	4	4	3	1	1		4	1	48	machine/equipment as load	
natural ground, rock			2		4		5	1	8	3	1	3	1	2	2	1	3	3		2	1	1		43	natural ground, rock	
standing tree					1			1			1	1		1			1					2	1	9	standing tree	
water			1		1		1	1					1		1		1			1				8	water	
abnormal environment			1						1					1	1	1						1		6	abnormal environment	
high/cold temperature environment			4		3		2	3	6	1	1	8	3	4	5	7	1	2	5	7	6	8	1	77	high/cold temperature environment	
other environments			13		7		10	5	1	3	4	12	14	8	13	6	4	8	8	9	5	3	8	141	other environments	
other causal agent			9		7		8	3	6	3	3	3	4	2	2	1	5	2	4	2	4	6	24	98	other causal agent	
no causal agent			18		24		17	14	16	16	23	15	11	13	13	15	12	14	15	17	9	20	19	301	no causal agent	
unclassifiable			2		2		2			2					1				1	1		1	1	13	unclassifiable	
total			1,362		1,044		951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	14,612	total	

Workers age of fatal and non-fatal accidents in cement products 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	23	27	23	15	17	16	12	14	8	10	8	4	9	17	10	8	7	3	11	4	10	7	9	272	19 years old or less





Fukushima	33	32	34		14		21	16	17	13	11	14	16	19	20	18	18	21	13	18	17	21	32	418	Fukushima
Ibaraki	64	66	64		49		38	28	37	55	24	31	27	31	43	40	25	36	24	34	30	34	35	815	Ibaraki
Tochigi	32	24	27		22		19	23	22	16	16	17	13	18	13	12	19	26	16	21	19	15	23	413	Tochigi
Gunma	45	51	36		16		36	24	28	17	24	15	14	21	19	27	17	22	15	20	15	19	21	502	Gunma
Saitama	47	34	45		45		47	39	42	36	19	26	30	29	34	23	39	28	35	37	29	21	44	729	Saitama
Chiba	39	33	25		28		23	25	32	28	26	24	17	26	15	29	18	20	21	23	20	20	25	517	Chiba
Tokyo	23	20	18		11		17	13	12	16	9	6	12	13	10	12	5	9	16	13	10	7	10	262	Tokyo
Kanagawa	35	42	30		25		26	25	31	23	20	13	15	12	23	18	10	10	13	13	21	18	17	440	Kanagawa
Niigata	22	27	23		18		27	26	27	16	12	24	9	12	27	26	21	15	15	13	21	21	25	427	Niigata
Toyama	18	6	14		11		9	9	8	8	13	9	4	5	4	10	1	6	6	7	7	8	6	169	Toyama
Ishikawa	15	11	12		7		10	9	7	8	4	3	6	5	5	3	5	5	6	2	4	3	4	134	Ishikawa
Fukui	23	16	15		17		15	13	7	12	10	4	16	10	6	13	7	9	9	18	11	10	3	244	Fukui
Yamanashi	16	16	13		10		8	12	12	7	3	5	8	13	13	14	8	8	9	8	6	4	7	200	Yamanashi
Nagano	29	29	23		23		13	18	19	14	8	17	11	19	14	14	11	12	15	11	11	10	12	333	Nagano
Gifu	43	29	30		40		28	22	16	21	15	13	9	12	17	21	14	12	14	11	12	16	8	403	Gifu
Shizuoka	34	21	20		17		15	25	32	26	23	16	21	20	23	13	15	11	20	17	15	12	18	414	Shizuoka
Aichi	42	51	54		29		28	30	33	41	24	29	12	27	28	30	33	25	25	23	34	28	32	658	Aichi
Mie	43	42	58		40		35	41	40	23	22	20	20	20	13	27	22	16	14	11	14	15	24	560	Mie
Shiga	21	27	22		37		23	23	15	34	9	12	11	8	16	12	15	11	12	12	14	8	9	351	Shiga
Kyoto	22	21	16		15		17	7	11	6	18	10	12	12	10	8	7	9	6	9	4	6	11	237	Kyoto
Osaka	26	28	48		26		23	30	32	17	18	14	15	11	16	14	8	18	8	13	8	14	16	403	Osaka
Hyogo	47	55	53		42		28	27	35	26	17	12	19	17	21	20	16	23	16	16	17	24	20	551	Hyogo
Nara	15	22	15		12		11	12	6	11	6	4	3	9	7	7	3	5	3	7	7	4	3	172	Nara

Wakayama	22	8	22		13		16	9	17	14	7	8	10	19	11	14	10	7	6	12	10	12	13	260	Wakayama
Tottori	6	2	6		6		6	5	1	1	3	8	4	4	1	5	3	2	1	5	2	4	6	81	Tottori
Shimane	15	10	11		12		3	9	9	8	5	10	6	5	5	10	5	2	6	3	5	6	3	148	Shimane
Okayama	33	31	26		25		21	27	25	15	11	12	12	20	22	18	10	11	21	14	19	18	16	407	Okayama
Hiroshima	38	39	42		22		27	29	12	30	13	9	14	14	16	16	11	20	16	17	26	14	27	452	Hiroshima
Yamaguchi	19	11	19		21		9	14	17	14	6	11	11	10	7	10	7	13	6	7	11	7	10	240	Yamaguchi
Tokushima	18	19	16		8		6	5	6	6	6	4	3	5	4	6	11	5	13	7	8	5	6	167	Tokushima
Kagawa	18	17	26		13		13	19	6	12	11	6	13	15	14	11	6	12	10	9	6	15	9	261	Kagawa
Ehime	19	31	29		26		14	25	17	17	10	9	8	15	12	10	7	11	11	17	15	15	10	328	Ehime
Kochi	11	34	28		21		12	5	3	14	12	8	8	4	7	5	10	7	6	10	6	12	9	232	Kochi
Fukuoka	65	81	74		53		50	41	54	38	38	39	38	32	46	34	49	26	29	32	39	47	37	942	Fukuoka
Saga	19	18	9		11		12	10	17	11	10	5	10	9	13	6	10	6	2	10	5	7	8	208	Saga
Nagasaki	24	23	22		16		13	9	11	6	9	5	6	11	15	16	9	13	13	13	12	12	6	264	Nagasaki
Kumamoto	34	28	29		26		33	23	32	20	19	22	16	20	19	19	22	26	23	25	35	28	26	525	Kumamoto
Oita	31	33	26		16		16	14	10	16	14	13	13	12	15	16	9	12	9	16	11	13	15	330	Oita
Miyazaki	30	26	31		14		20	10	15	12	17	10	8	8	9	9	11	7	5	11	10	13	12	288	Miyazaki
Kagoshima	29	25	47		29		26	32	22	15	18	12	19	22	17	11	17	13	16	17	14	18	18	437	Kagoshima
Okinawa	10	12	9		8		4	11	16	7	11	5	7	4	7	11	5	4	9	11	12	13	4	180	Okinawa
total	1,406	1,371	1,362		1,044		951	916	895	819	635	605	596	676	754	729	615	637	620	677	676	677	728	17,389	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)











tools																									machine, tools	
tools	3	1			1		1	3		1									1						11	tools
other equipments, facilities			1		1		1		2	1	1			1		1	1				1				11	other equipments, facilities
temporary buildings, establishments	2	5	3	2	1	3	1	3	1		1	8	1	3		1	1			4			1		41	temporary buildings, establishments
hazards, harmful substances																										hazards, harmful substances
materials	1	2	2				3	1		1	1		2	3		1	2	1	1	2					23	materials
load	1		3	1		1	2	1	2										1						12	load
natural environment	1	1		1		1				1	1		1	3									1		11	natural environment
other causal agent					1																		1		2	other causal agent
no causal agent																				1					1	no causal agent
unclassifiable																										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	312	total	

Causal agents (small) of fatal accidents in cement products 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
-------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-------	-------------------



hardening machine																								hardening machine	
demolition machine																								demolition machine	
vehicle for high lift work																								vehicle for high lift work	
other construction machines		1																					1	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																								other metal manufacturing machines	
centrifugal machine			1																				1	centrifugal machine	
mixer, grinder	4	3	2	1	1	1	1			3	1			2	1	1		1		1			23	mixer, grinder	
roll machine (except printingroll machine)																								roll machine (except printingroll machine)	
injection molding																							1	1	injection molding

machine																								machine
food manufacturing machine																								food manufacturing machine
printing machine																								printing machine
industrial robot					1		1																2	industrial robot
other general power machines	5	2	4		2	3	1			2	1	1	1			1	1	2		1	3	30	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	1						1	1				10	crane
mobile crane					1	1			1												1		4	mobile crane
derrick crane																								derrick crane
elevator, lift										1	1												2	elevator, lift
cargo lifting appliance																								cargo lifting appliance
gondola																								gondola
lumberyard equipment, logging cableway																								lumberyard equipment, logging cableway





arc welding equipment																									arc welding equipment
other welding equipment																									other welding equipment
kiln, caldron																									kiln, caldron
industrial dryer																									industrial dryer
other kiln, caldron																									other kiln, caldron
transmission		1																						1	transmission
electric power facilities												1												1	electric power facilities
other electrical equipment							1																	1	other electrical equipment
human power cranes																									human power cranes
human power hauling equipment																									human power hauling equipment
human power machine																									human power machine
hand tool		1																						1	hand tool
ladder											1													1	ladder
slinging tool	1				1		1	2																5	slinging tool
other tools	2	1						1											1					5	other tools
other equipment, facilities				1		1			1	2	1	1				1					1			11	other equipment, facilities

scaffolding												1											1	scaffolding	
timbering																								timbering	
stairs, landing stage																								stairs, landing stage	
opening		1				1																		2	opening
roof, beam, haze, crossbeam, principal rafter			1											1										2	roof, beam, haze, crossbeam, principal rafter
working platform, boot board								1					1			1								3	working platform, boot board
passage												1												1	passage
building, establishment	2	4	2	2	1	2	1	2	1		1	4		2			1							28	building, establishment
other temporary buildings, establishments												2							1			1		4	other temporary buildings, establishments
explosive substance																									explosive substance
inflammable substance																									inflammable substance
inflammable gas																									inflammable gas
harmful substance																									harmful substance
radiation																									radiation
other hazards, harmful substances																									other hazards, harmful substances
metal material			1					1		1														4	metal material



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																			1				1	2	19 years old or less
20-29	5	3	3	1		2	3			1										1				19	20-29
30-39	3	4	1	2	2	2	2	1	2	1	2	2	1	4	2	1	1	1	2	1			1	38	30-39
40-49	4	2	2	1	2	4	1	3	3		1	3	1	3	1	1	1		2	4	1		1	41	40-49
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	130	50-59
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	82	60 years old or more
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	312	total

Workers' number of workplace of fatal accidents in cement products 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	3	4	5	3	2	2	1	1	3	7	1	7	9		3	1	1	1	1	2		1	1	59	9 workers or less
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	10-29
30-49	5	7	3	3	4	4	1	3	2	2	3	1		1	1	2		1	2	1	1	1	1	49	30-49
50-99	5	5	3	2	3	1	5	1	1		1		1	1		1	1		1		1		1	34	50-99
100-299	2			1		1								1										5	100-299
300 workers or more	2							1																3	300 workers or more
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	312	total

Month of fatal accidents in cement products 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	5		4	4		1	1		1	2		1		4	1	1			2	1		1		29	January

February	2	1	1	2		2		2		1		2				1			2	3				19	February	
March	3	4	2	1	4	1	3	1	2	3	1		1				2	1	1					2	32	March
April	2		3	1	2	1		2	1		1		2		2			1	2			1	1	22	April	
May	1	3	3	1	1	1	4		1	1	1	4	1	2	1	1	3		3		2		1	35	May	
June	2	2	2	3		2	2		1	1		2	1	1		1				1		2		23	June	
July	2	2		1	3	2		1			1	1		2		1	1	1	1	1	1	1		22	July	
August	5	5	2		2	1	1		4	2	1	4	1		1	1	1	1	2	2		1	1	38	August	
September	2	4	2				3		1		1	3	3	1	1									21	September	
October	2	2	4			1	2	3		2	2			1	1	1	1	1		3				26	October	
November	3		2	1		7			1	1			1		1				1		3	1		22	November	
December	1	2			2	1	2	1	1	1			3	1		2			2	2	1	1		23	December	
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	312	total	

Prefecture of fatal accidents in cement products 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			2	1	3		1		2	2		1								2	1			15	Hokkaido
Aomori																		1		1			1	3	Aomori
Iwate	2			1								2				1		1						7	Iwate
Miyagi		1	1			2												1						5	Miyagi
Akita						1													1					2	Akita
Yamagata	1			3		2				1						1								8	Yamagata
Fukushima	2					1	1					1			1									6	Fukushima

Ibaraki	1		1				1					1		1		2					1			8	Ibaraki		
Tochigi			1	1			1															1			4	Tochigi	
Gunma	1		1				1			1						1					1			1	7	Gunma	
Saitama			1							1	1	1		2		1						1			8	Saitama	
Chiba		2		1	1	1	1						1								1	1	1		10	Chiba	
Tokyo	1	1					1						1	2										1	7	Tokyo	
Kanagawa	3	1	3				2								1		1						1	1	13	Kanagawa	
Niigata		1						1	1																3	Niigata	
Toyama							1	1																	2	Toyama	
Ishikawa	1						1					1													4	Ishikawa	
Fukui	1		1				1				2					2						1		1	9	Fukui	
Yamanashi			1	1				1					1										1		5	Yamanashi	
Nagano		1					1						1				1					1			5	Nagano	
Gifu	1	1	1		2	1		1				2	1			1	1					1			13	Gifu	
Shizuoka	2	1			1	1	1						2			1					2		1	1	13	Shizuoka	
Aichi	1	1	1		1	1			2			1		1	1				1			1		1	13	Aichi	
Mie			1		1	1	2	1	1					2		1	2					1			13	Mie	
Shiga	2	1					1			1															5	Shiga	
Kyoto		2							1			1											1		5	Kyoto	
Osaka								2		1			1									1		1	6	Osaka	
Hyogo		1	1	1	3	2			2	1						1	1	1				1			15	Hyogo	
Nara																											Nara
Wakayama			3											2										1	6	Wakayama	

Tottori		1					1																2	Tottori	
Shimane	1			1								1											3	Shimane	
Okayama		2			1																		3	Okayama	
Hiroshima	1	1								1	1				1				1			1	7	Hiroshima	
Yamaguchi	1			1							1	1			1		1						6	Yamaguchi	
Tokushima		1																					1	Tokushima	
Kagawa												1					1					1	3	Kagawa	
Ehime	1	1				1				1			2					1					7	Ehime	
Kochi	1	1	2			1								1		1			2				9	Kochi	
Fukuoka	2	3	1	1	1	1	1					1	2						2			1	16	Fukuoka	
Saga			1								1												2	Saga	
Nagasaki				1			1												1				3	Nagasaki	
Kumamoto		1	2			1			1	1		1		1									8	Kumamoto	
Oita	1			1				1	1			1							2				7	Oita	
Miyazaki	1					1					1	2											5	Miyazaki	
Kagoshima	2							1	1	1				2							1		8	Kagoshima	
Okinawa									1										1				2	Okinawa	
total	30	25	25	14	14	20	18	10	13	14	8	17	13	12	8	9	8	5	16	13	7	7	6	312	total

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

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