Fatal and non-fatal accidents in pulp/paper processing products in Japan in 1999-2022

pulp/paper processing products industry Code No.0106

Type of accidents in pulp/paper processing 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	105	113	115	119	99	94	97	93	87	84	78	78	70	75	71	81	86	88	71	70	92	69	81	67	2,083
falling to same level	117	131	137	121	133	96	122	111	90	132	89	92	85	104	84	82	89	101	95	118	91	115	104	140	2,579
crash	54	70	58	50	49	52	52	45	31	28	33	31	36	30	25	31	33	33	33	31	40	30	36	45	956
struck by flying or falling object	60	63	59	52	39	49	36	33	37	42	24	38	32	35	24	16	30	23	28	29	20	23	22	17	831
collapse	25	23	22	22	23	19	30	19	25	21	14	15	8	9	19	13	14	15	5	11	12	12	16	14	406
crashed by	57	50	55	56	54	45	54	43	43	46	32	29	35	33	24	24	24	30	21	32	20	28	34	31	900
caught in/between	709	693	650	639	657	572	511	550	551	499	418	431	386	402	397	395	344	338	345	334	339	300	330	299	11,089
cut	87	94	87	87	87	79	72	71	70	63	47	53	58	55	42	48	48	47	42	42	44	35	36	45	1,439
injury to the sole of the foot	1		1	4	2	1	3	1		2	1		1	1	2	2	1	2	2	2		1	1		31
drown								1					3				1				1				6
contact to high/low-temperature	17	21	19	13	9	16	8	10	15	10	7	11	10	8	12	6	8	6	15	17	11	16	13	16	294

contact to harmful substance	5	7	5	10	6	7	5	6	5	5	3	7	1	1	3	4	3	3	7	5	7	1	6	1	113
electric shock	1	1	3	2	1			2							2		1	2	2	1				3	21
explosion				1		3													1	1				1	7
burst	1		1	2			1	1	2															1	9
fire			1	1	2				1			1				1		1						1	9
traffic accident (public road)	7	7	13	11	4	6	5	6	11	6	4	11	5	7	8	4	4	7	4	2	5	10	3	5	155
traffic accident (others)	1	1	1	1					1			1		1	1	1				2		1			12
reaction to motion/improper motion	70	63	54	58	53	74	62	68	75	61	46	56	57	67	61	54	66	50	47	65	63	62	79	100	1,511
others	3	2	2	1		3	1	1	4	1	3	1	3	2	1		2	1	2	3		6	41	2	85
unclassifiable	4	1		2	1	1	1	1		3	1	1		1		1	1		1	1				2	23
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Causal agents (large) of fatal and non-fatal accidents in pulp/paper processing 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	721	709	643	651	641	578	520	528	539	491	403	407	376	398	384	379	345	342	335	335	318	294	330	288	10,955
crane, conveying machine	174	194	195	176	187	151	148	149	156	146	132	122	104	107	105	102	98	122	95	104	119	114	106	100	3,206

other equipment	116	124	137	119	121	115	111	116	108	119	79	100	90	101	90	79	80	88	90	87	95	94	87	107	2,453
temporary buildings, establishments	147	140	140	147	127	121	122	110	96	118	87	100	103	103	79	109	108	107	100	109	108	104	108	144	2,737
substance, material	56	74	54	65	63	62	57	67	57	44	34	50	36	36	37	23	40	31	38	38	33	23	47	42	1,107
load	65	60	74	62	52	59	62	50	57	47	33	53	45	51	43	35	42	34	38	43	40	38	40	51	1,174
environment	7	2	12	5	3	6	6	9	5	4	3	11	10	8	9	12	10	5	7	13	11	13	9	15	195
others	38	37	28	27	25	25	34	33	30	34	29	13	26	27	29	24	32	18	18	37	21	29	75	43	732
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Causal agents (middle) of fatal and non-fatal accidents in pulp/paper processing 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							1			2				1	1		2				1	1	10
power transmission mechanism	26	23	22	27	22	27	26	21	14	18	12	4	21	17	13	13	16	9	11	15	12	12	15	12	408
woodworking machine	7	5	8	7	8	4	6	6	7	3	3	3	6	7	5	4	3	3	3	4	3	5	6	6	122
construction machine	2	1	2			1	1	1	1		1	3		2		1						2		1	19
metal																									

manufacturing machine	44	30	29	18	22	11	14	20	13	10	10	17	17	11	9	12	7	13	9	7	12	8	8	9	360
general machine	642	649	582	599	589	535	473	480	503	460	377	378	332	361	357	348	318	317	310	309	291	267	300	259	10,036
mobile silviculture machine																									
crane	7	12	20	17	16	10	10	12	8	7	8	5	4	9	6	3	4	4	5	6	6	5	3	5	192
conveying machine	161	174	161	148	167	134	137	129	138	132	121	105	95	92	90	94	86	109	88	94	111	99	100	90	2,855
vehicle	6	8	14	11	4	7	1	8	10	7	3	12	5	6	9	5	8	9	2	4	2	10	3	5	159
pressure vessel		2	2		3	1	1		5	1		1	1	1				1	1	1			2	3	26
chemical facilities	2	1		1		1	1							1					3	1		1			12
welding equipment															1										1
kiln, caldron	2	1	1	1		1	1	1	1	1	1			1						1		3		1	17
electric equipment		1	3	2	3	1	3	1	1			1	1		6	1	1	1		2	1		2	6	37
human power machine, tools	29	36	45	37	43	46	37	34	34	31	24	32	25	36	24	23	25	28	20	17	27	26	18	35	732
tools	66	57	64	60	54	42	50	66	49	69	45	48	48	41	50	39	43	49	47	46	48	55	50	45	1,231
other equipments, facilities	17	26	22	18	18	23	18	14	18	17	9	18	15	21	9	16	11	9	19	19	19	9	15	17	397
temporary buildings, establishments	147	140	140	147	127	121	122	110	96	118	87	100	103	103	79	109	108	107	100	109	108	104	108	144	2,737

hazards, harmful substances	11	7	13	12	9	7	7	7	6	6	3	10	5	1	6	5	3	6	9	5	7	3	7	2	157
materials	45	67	41	53	54	55	50	60	51	38	31	40	31	35	31	18	37	25	29	33	26	20	40	40	950
load	65	60	74	62	52	59	62	50	57	47	33	53	45	51	43	35	42	34	38	43	40	38	40	51	1,174
natural environment	7	2	12	5	3	6	6	9	5	4	3	11	10	8	9	12	10	5	7	13	11	13	9	15	195
other causal agent	8	7	7	4	4	6	6	8	4	7	5	2	4	5	3	3			3	5	4	5	44	6	150
no causal agent	25	27	20	21	20	19	27	24	26	24	23	9	22	20	24	20	29	18	15	30	17	24	31	35	550
unclassifiable	5	3	1	2	1		1	1		3	1	2		2	2	1	3			2				2	32
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Causal agents (small) of fatal and non-fatal accidents in pulp/paper processing 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		2				1	1	9
power transmission mechanism			22		22		26	21	14	18	12	4	21	17	13	13	16	9	11	15	12	12	15	12	305
circular sawing machine			6		5		5	5	6	2	2	3	3	5	3	4	3	2	2	3	1	5	4	6	75
band sawing machine					1								2												3
wood planer																							1		1

machine																									
hollow chisel mortiser, wood borer																									
chamfering machine, router, woodworking milling machine			1																						1
chain saw																									
other woodworking machines			1		2		1	1	1	1	1		1	2	2			1	1	1	2		1		19
leveling, transporting or loading machine			2						1		1	2		2		1						2		1	12
excavating machine							1	1				1													3
foundation work machine																									
hardening machine																									
demolition machine																									
vehicle for high lift work																									
other construction machines																									

lathe			1		1		1		1		1	1		1				2	1					1	11
drill press, milling machine							1	2		1		2	1												7
grinding machine, buffing machine			2		2		1	1		1	1	1		1	2					1	2				15
power press			8		3		1	3	4	1	2	2	5	2	3	4	1	3	1		2	4	2	2	53
forging pressure hammer			1																						1
shearing machine			10		11		5	8	6	4	4	7	8	6	4	5	6	5	5	4	5	4	5	4	116
other metal manufacturing machines			7		5		5	6	2	3	2	4	3	1		3		3	2	2	3		1	2	54
centrifugal machine								2		2			1												5
mixer, grinder			8		6		1	4	1	4	2		1	4	5	3	1	1	2	2	3	2	4	2	56
roll machine (except printingroll machine)			116		118		132	98	100	96	79	88	56	83	72	83	70	74	72	56	60	58	61	56	1,628
injection molding machine			2		3		2	1	3		1	1				1				1	1			3	19
food manufacturing machine			2					1		3														1	7
printing machine			67		76		59	74	73	61	48	52	48	65	60	52	41	40	52	42	38	26	40	28	1,042
industrial robot							1	2	1	1	3	2		1				1		1		1		2	16

other general power machines			387		386		278	298	325	293	244	235	226	208	220	209	206	201	184	207	189	180	195	167	4,838
felling machine																									
mobile logging machine																									
skyline yarding machine																									
other mobile silviculture machine																									
crane			6		5		4	5	2	2	4	4	4	4	3		4	1	2	5	4			4	63
mobile crane														2									1		3
derrick crane			1																						1
elevator, lift			10		8		5	5	6	4	2			2		2			3	1	2	3	2	1	56
cargo lifting appliance																									
gondola								1																	1
lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane			3		3		1	1		1	2	1		1	3	1		3				2			22

truck			26		25		26	26	23	25	17	19	13	20	21	13	23	29	25	32	28	27	28	16	462
forklift			68		83		61	55	70	61	53	42	46	44	34	49	43	41	35	31	52	40	45	45	998
railway equipment								1		2	1		1							1		1			7
conveyor			57		52		40	43	37	43	40	36	29	25	35	29	15	35	25	23	26	25	25	23	663
loader			3		2		1				1	2	1			1	1					1			13
straddle carrier																									
rough terrain hauler																									
other powered conveying machines			7		5		9	4	8	1	9	6	5	3		2	4	4	3	7	5	5	2	6	95
cars, bus, motorcycle			14		4		1	8	10	6	3	12	5	6	9	4	8	9	2	4	2	9	3	5	124
railway vehicle																									
other vehicles										1						1						1			3
boiler									4			1							1	1			1	2	10
pressure vessel			2		2		1			1								1						1	8
other pressure vessels					1				1				1	1									1		5
chemical facilities							1							1					3	1		1			7
gas welding equipment																									
arc welding equipment																									

other welding equipment															1										1
kiln, caldron			1				1	1	1	1	1									1		1			8
industrial dryer														1								1		1	3
other kiln, caldron																						1			1
transmission			2		2		2	1							1	1		1			1		2	3	16
electric power facilities					1				1						3					1				2	8
other electrical equipment			1				1					1	1		2		1			1				1	9
human power cranes							1			1	1	1	1			1			1	1	2		5	2	17
human power hauling equipment			15		19		17	14	18	13	13	15	13	19	8	10	13	16	9	9	16	12	5	14	268
human power machine			5		1		1	1	1	2	2	1		3	1		1	1	1	1	2	2		2	28
hand tool			25		23		18	19	15	15	8	15	11	14	15	12	11	11	9	6	7	12	8	17	271
ladder			26		26		22	23	19	21	18	17	21	19	24	21	25	17	20	18	21	15	15	13	401
slinging tool			1					2	1	5	1	1			1		1	4				1		1	19
other tools			37		28		28	41	29	43	26	30	27	22	25	18	17	28	27	28	27	39	35	31	586
other equipment, facilities			22		18		18	14	18	17	9	18	15	21	9	16	11	9	19	19	19	9	15	17	313
scaffolding			2		3		2		1		3	1		1		3			1		3		2	1	23

timbering																									
stairs, landing stage			32		26		23	26	22	24	18	23	25	13	14	28	23	17	18	17	25	28	19	26	447
opening					1		2	2	2	2	4	2	2	4		2	3	2	1	1	1	2	5	6	44
roof, beam, haze, crossbeam, principal rafter			3		1		2	1	2	1	3	1			1	1		2	2	2	1	2	3	3	31
working platform, boot board			33		26		28	29	19	17	15	21	12	18	17	15	32	19	15	11	16	12	16	27	398
passage			44		49		42	27	26	56	36	39	36	46	32	32	33	42	42	58	46	41	43	57	827
building, establishment			13		12		16	18	13	10	3	9	12	11	10	11	11	9	10	11	9	6	12	11	217
other temporary buildings, establishments			13		9		7	7	11	8	5	4	16	10	5	17	6	16	11	9	7	13	8	13	195
explosive substance			1																						1
inflammable substance			2		1			1		1		1			3	1								1	11
inflammable gas													1					1				1	1		4
harmful substance			5		2		2	5	3	1		6	1	1	3	3	2	3	6	5			4		52
radiation																									
other hazards, harmful substances			5		6		5	1	3	4	3	3	3			1	1	2	3		7	2	2	1	52

metal material			13		16		12	16	17	8	9	20	9	10	8	4	10	8	8	8	5	6	7	6	200
lumber, bamboo			8		6		4	4	6	4		1	3	4	3	1	2	6	5	4	2	2	3	6	74
stone, sand, substance							2		1					1			1			1					6
other materials			20		32		32	40	27	26	22	19	19	20	20	13	24	11	16	20	19	12	30	28	450
load			69		47		62	45	54	44	33	47	41	49	41	33	42	33	36	40	40	38	39	50	883
machine/equipment as load			5		5			5	3	3		6	4	2	2	2		1	2	3			1	1	45
natural ground, rock			1		1		1								1			1							5
standing tree													1			1					1				3
water			1										3			1	2			1		2			10
abnormal environment																					1				1
high/cold temperature environment			2		1			3	4	1	2	8	2	4	4	3	5	3	4	9	6	10	6	7	84
other environments			8		1		5	6	1	3	1	3	4	4	4	7	3	1	3	3	3	1	3	8	72
other causal agent			7		4		6	8	4	7	5	2	4	5	3	3			3	5	4	5	44	6	125
no causal agent			20		20		27	24	26	24	23	9	22	20	24	20	29	18	15	30	17	24	31	35	458
unclassifiable			1		1		1	1		3	1	2		2	2	1	3			2				2	22
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Workers age of fatal and non-fatal accidents in pulp/paper processing 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	46	54	49	47	40	33	43	24	31	21	22	25	25	19	21	29	15	21	26	19	25	14	24	13	686
20-29	303	320	300	254	267	239	202	211	203	185	143	151	134	140	128	135	120	122	125	114	118	97	130	109	4,250
30-39	217	264	229	264	265	247	257	275	256	242	181	197	191	199	191	173	165	164	127	174	153	121	147	116	4,815
40-49	269	239	233	232	225	194	178	210	209	212	175	179	185	191	179	172	190	178	198	191	159	175	199	210	4,782
50-59	382	337	351	336	302	290	253	232	226	205	173	197	156	166	146	141	145	160	131	155	174	168	170	197	5,193
60 years old or more	107	126	121	119	120	114	127	110	123	138	106	107	99	116	111	113	120	102	114	113	116	134	132	145	2,833
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Workers' number of workplace of fatal and non-fatal accidents in pulp/paper processing 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	190	204	188	193	197	195	161	134	154	124	100	103	102	104	111	90	100	82	81	88	60	66	89	71	2,987
10-29	388	373	391	374	376	324	334	323	317	306	253	252	194	243	240	241	205	211	199	209	201	182	200	217	6,553
30-49	245	279	250	239	250	217	215	224	196	161	143	181	149	157	141	148	151	155	147	144	156	143	147	142	4,380
50-99	248	242	236	234	224	178	165	190	204	215	144	152	164	169	146	142	139	149	139	165	168	156	171	169	4,309
100-299	182	174	173	166	142	161	157	160	135	165	140	140	154	135	119	120	135	135	122	135	124	132	142	154	3,502
300 workers or more	71	68	45	46	30	42	28	31	42	32	20	28	27	23	19	22	25	15	33	25	36	30	53	37	828

total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Month of fatal and non-fatal accidents in pulp/paper processing 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	126	107	113	111	105	117	97	97	84	85	80	95	60	77	59	71	51	74	58	58	63	64	61	63	1,976
February	103	110	102	90	113	92	79	94	94	93	58	64	54	69	69	60	54	65	59	69	56	47	53	63	1,810
March	113	133	128	97	118	97	95	84	99	88	70	77	72	72	73	67	61	73	52	71	66	60	71	58	1,995
April	109	109	111	98	98	91	59	86	78	82	66	73	73	79	51	71	71	53	70	63	48	64	78	61	1,842
May	114	108	106	99	91	87	88	80	88	83	65	63	64	64	61	56	59	53	48	51	69	65	53	53	1,768
June	103	121	112	98	115	97	95	89	101	84	59	58	85	67	69	64	64	46	65	67	54	51	61	66	1,891
July	111	96	119	123	106	88	89	96	96	89	75	61	58	81	46	75	69	68	64	71	62	66	56	86	1,951
August	101	111	97	105	89	88	109	99	86	59	64	81	64	68	63	64	62	66	57	73	62	61	89	68	1,886
September	129	114	120	113	106	92	78	86	87	75	61	74	75	57	61	52	69	58	56	44	74	51	70	75	1,877
October	116	118	95	102	95	102	103	71	92	106	77	74	71	62	80	57	67	71	65	74	74	57	78	63	1,970
November	100	103	84	112	92	82	85	106	71	87	55	71	58	65	65	52	66	58	66	60	59	54	63	74	1,788
December	99	110	96	104	91	84	83	74	72	72	70	65	56	70	79	74	62	62	61	65	58	69	69	60	1,805
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

Prefecture of fatal and non-fatal accidents in pulp/paper processing 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	34	31	29		15		20	22	23	18	21	13	15	20	21	10	22	20	14	14	18	20	13	22	435
Aomori	4	2	6		4		1	3	4	7	1	2	9	3	4	7	1	4	6	5	2	4	3		82
Iwate	4	9	5		9		3	6	7	7	2	11	5	6	8	9	3	2	5	4	4	4	6	2	121
Miyagi	20	18	11		15		6	14	10	12	6	7	9	5	7	8	5	4	6	5	5	5	8	13	199
Akita	4	3	5		6		1	2	2			2	1	3	1		5	4		4	3	3	3	1	53
Yamagata	15	7	13		5		4	4	8	2	5	6	4	4	7	5	2	5	2	4	6	3	7	7	125
Fukushima	13	23	16		12		9	18	17	13	7	15	11	17	10	9	13	15	9	7	11	6	11	7	269
Ibaraki	31	43	25		25		25	24	31	33	24	21	23	22	19	20	25	19	14	28	18	16	30	21	537
Tochigi	24	22	21		25		21	21	15	26	21	17	17	20	19	17	20	16	18	19	13	19	23	17	431
Gunma	22	17	12		17		20	18	13	9	13	14	13	13	10	13	14	13	7	15	12	11	12	11	299
Saitama	74	109	84		95		80	85	90	83	57	78	49	76	71	51	54	77	54	56	75	59	76	81	1,614
Chiba	40	36	42		19		21	27	21	24	23	20	22	17	19	18	13	15	16	13	12	12	35	18	483
Tokyo	42	43	40		45		32	33	31	32	25	31	27	20	22	17	19	14	20	18	13	14	26	15	579
Kanagawa	48	42	33		54		48	38	28	38	17	28	22	40	25	23	20	32	31	16	17	17	21	27	665
Niigata	17	18	17		17		9	14	7	16	13	14	11	12	11	11	15	10	17	12	12	14	19	9	295
Toyama	17	13	12		19		9	18	18	9	12	14	14	12	12	5	14	8	11	4	10	8	14	12	265
Ishikawa	6	12	11		10		7	13	3	7	6	7	7	4	5	5	4	5	2	11	8	6	5	8	152
Fukui	16	9	23		11		12	16	8	6	10	11	7	6	12	9	7	10	3	9	7	5	3	11	211
Yamanashi	20	11	17		8		11	17	5	5	1	3	5	8	4	8	5	6	4	3	2	4	6	5	158
Nagano	11	9	15		11		9	14	8	9	12	5	6	6	12	9	9	8	3	8	8	10	5	12	199
Gifu	61	61	52		55		44	33	38	45	30	34	27	36	25	28	32	31	32	35	28	36	32	40	835
Shizuoka	174	162	170		156		137	132	109	137	101	105	71	91	74	92	102	88	85	86	95	93	90	83	2,433

Aichi	92	82	73		77		59	55	68	54	48	69	61	58	38	47	56	50	63	60	53	40	59	64	1,326
Mie	14	15	17		20		20	18	16	19	9	13	7	10	14	8	7	5	9	10	18	6	8	6	269
Shiga	9	18	19		25		16	26	23	17	20	17	13	14	13	17	11	10	9	11	12	14	15	19	348
Kyoto	16	30	29		25		18	16	28	20	17	12	23	20	19	18	10	12	21	15	15	8	17	15	404
Osaka	117	111	141		100		103	83	97	84	71	63	76	73	65	61	62	58	59	61	45	49	69	51	1,699
Hyogo	58	57	44		54		43	44	48	38	33	31	37	38	31	42	37	33	26	41	44	31	31	29	870
Nara	8	9	13		16		6	16	17	22	13	15	9	9	10	7	16	13	11	11	19	11	19	10	280
Wakayama	5	8	4		7		5	8	4	5	10	2	3	4	4	6	5	4	6	9	2	7	4	4	116
Tottori	8	7	5		4		4	2	6	5	6	3	2	4	5	5	3	3	3	6	7	11	6	4	109
Shimane	8	6	3		2		2	2	3	6		1	1	1	1	4	2		2	3	1	3	1	1	53
Okayama	13	18	12		23		19	12	19	14	11	18	14	20	13	17	7	12	10	10	11	14	8	20	315
Hiroshima	18	20	28		12		23	13	18	12	22	10	10	11	20	14	11	8	8	17	12	7	10	10	314
Yamaguchi	13	12	7		12		10	10	7	6	4	7	6	7	2	6	3	2	3	8	5	3	7	7	147
Tokushima	12	26	15		14		7	6	13	9	5	7	7	8	6	6	6	5	9	5	9	8	5	9	197
Kagawa	28	37	29		38		38	23	38	22	17	18	26	18	23	23	16	10	19	14	16	18	19	20	510
Ehime	86	77	83		72		77	68	68	64	56	46	59	49	58	59	48	50	48	48	51	50	34	45	1,296
Kochi	47	39	35		33		23	22	24	17	15	19	17	12	10	15	12	28	17	14	5	16	9	9	438
Fukuoka	28	32	24		25		35	23	26	24	16	13	22	16	20	14	14	18	15	23	22	15	14	16	455
Saga	17	8	6		5		4	12	3	13	5	12	9	6	7	5	6	7	7	5	5	15	6	11	174
Nagasaki	6	6	5		2		1	4	1	1		4	1	1	2	2	1	2	2	1	2		2	4	50
Kumamoto	9	6	10		8		7	12	12	4	4	5	2	4	3	5	7	4	6	7	6	6	4	5	136

Oita	5	5	7		4		3	6	5	1	1	4	4	2	3	3	5	1	4	5	2	2	3	2	77
Miyazaki	2	5	6		2		4	2	5	4	5	4	4	2	4	2	3	1	2	1	1	2	2	2	65
Kagoshima	7	4	7		3		3	5	3	4	4	1	1	2	2	2	2	3	2	2	3	2		3	65
Okinawa	1	2	2		3		1	2			1	4	1	1	5	1	1	2	1	3		2	2	2	37
total	1,324	1,340	1,283	1,252	1,219	1,117	1,060	1,062	1,048	1,003	800	856	790	831	776	763	755	747	721	766	745	709	802	790	22,559

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 pulp/paper processing products in Japan in 1999-2022

pulp/paper processing products industry Code No.0106

Type of fatal accidents in pulp/paper processing 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	2		2	1	3	1	2		2		2	3	1	2	1	1	1		2		2		3	1	32
falling to same level													2	1	1	1	1								6
crash																									

struck by flying or falling object					2							1						1						1	5
collapse		3											1					2		1					7
crashed by			2	1		1	2		1		1				1			1			1				11
caught in/between	7	5	7	9	5	5	3	3	3	9	4	5	3	5	3	4		2	1	2	2	6	3	5	101
cut																									
injury to the sole of the foot																									
drown								1					3				1				1				6
contact to high/low-temperature	1								1												1	1			4
contact to harmful substance		1					1												1	3					6
electric shock		1													1				1						3
explosion						1																			1
burst	1																								1
fire																									
traffic accident (public road)	1	1	2					2													1	1			8
traffic accident (others)																									
reaction to motion/improper motion																									

others										1							1								2
unclassifiable																									
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Causal agents (large) of fatal accidents in pulp/paper processing 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	3	4	4	9	5	5	4	4	2	7	3	3	1	4	3	3		2	2	1	2	3	2	4	80
crane, conveying machine	5	3	7	1	2	2	2	2	3	2	2	2	3	3	2	3	1	1	1	1	2	3	3	1	57
other equipment	1		1	1								3	1		1			1			1				10
temporary buildings, establishments	2	1			2		1		1		2	1	1	1			1		1		2	1	1	1	19
substance, material		1	1				1											1	1	3					8
load		2			1	1							1		1			1		1				1	9
environment	1								1				3				1				1	1			8
others										1							1								2
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Causal agents (middle) of fatal accidents in pulp/paper processing 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	1								1				1									5
woodworking machine																									
construction machine																								1	1
metal manufacturing machine																									
general machine	3	3	3	8	5	5	4	4	2	7	3	2	1	4	3	2		2	2	1	2	3	2	3	74
mobile silviculture machine																									
crane		1		1	1		1							2		1			1		1				9
conveying machine	5	1	5		1	2	1		3	2	2	2	3	1	2	2	1	1		1	1	2	3	1	42
vehicle		1	2					2														1			6
pressure vessel												1													1
chemical facilities																									
welding equipment																									
kiln, caldron																									
electric equipment															1										1
human power machine, tools																									
tools			1	1									1					1							4
other equipments, facilities	1											2									1				4

temporary buildings, establishments	2	1			2		1		1		2	1	1	1			1		1		2	1	1	1	19
hazards, harmful substances		1	1				1												1	3					7
materials																		1							1
load		2			1	1							1		1			1		1				1	9
natural environment	1								1				3				1				1	1			8
other causal agent																									
no causal agent										1							1								2
unclassifiable																									
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Causal agents (small) of fatal accidents in pulp/paper processing 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	1								1				1									5
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
excavating machine																									
foundation work machine																									
hardening machine																									
demolition machine																									
vehicle for high lift work																									
other construction machines																									
lathe																									
drill press, milling machine																									
grinding machine, buffing machine																									
power press																									
forging pressure hammer																									

shearing machine																									
other metal manufacturing machines																									
centrifugal machine																									
mixer, grinder				1		1		1													1				4
roll machine (except printingroll machine)		2	1	1	1	1	2			6				3	1	1		1				1	1	1	23
injection molding machine																									
food manufacturing machine																									
printing machine					1																				1
industrial robot																								1	1
other general power machines	3	1	2	6	3	3	2	3	2	1	3	2	1	1	2	1		1	2	1	1	2	1	1	45
felling machine																									
mobile logging machine																									
skyline yarding machine																									
other mobile silviculture machine																									
crane		1																			1				2
mobile crane																									
derrick crane																									

elevator, lift				1	1		1							2		1			1						7
cargo lifting appliance																									
gondola																									
lumberyard equipment, logging cableway																									
simple skyline yarding equipment																									
other powered crane																									
truck	1																				1				2
forklift	2		2			1	1		1	1	1		1	1	2	1	1			1		1	2	1	20
railway equipment																									
conveyor	1	1			1				2	1	1	1				1		1				1	1		12
loader			1			1																			2
straddle carrier																									
rough terrain hauler																									
other powered conveying machines	1		2									1	2												6
cars, bus, motorcycle		1	2					2														1			6
railway vehicle																									
other vehicles																									
boiler												1													1
pressure vessel																									

other pressure vessels																									
chemical facilities																									
gas welding equipment																									
arc welding equipment																									
other welding equipment																									
kiln, caldron																									
industrial dryer																									
other kiln, caldron																									
transmission																									
electric power facilities															1										1
other electrical equipment																									
human power cranes																									
human power hauling equipment																									
human power machine																									
hand tool																									
ladder			1										1												2
slinging tool				1														1							2
other tools																									
other equipment, facilities	1											2									1				4
scaffolding																									
timbering																									

stairs, landing stage											1										1				2
opening	1				1		1							1							1				5
roof, beam, haze, crossbeam, principal rafter	1								1										1				1		4
working platform, boot board											1	1					1							1	4
passage					1								1												2
building, establishment		1																				1			2
other temporary buildings, establishments																									
explosive substance																									
inflammable substance																									
inflammable gas																									
harmful substance		1	1				1												1	3					7
radiation																									
other hazards, harmful substances																									
metal material																									
lumber, bamboo																									
stone, sand, substance																									
other materials																		1							1
load		2			1	1							1		1			1		1				1	9

machine/equipment as load																									
natural ground, rock																									
standing tree																									
water													3				1								4
abnormal environment																									
high/cold temperature environment	1								1												1	1			4
other environments																									
other causal agent																									
no causal agent										1							1								2
unclassifiable																									
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Workers age of fatal accidents in pulp/paper processing 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
20-29	2		1	5	1		1	1	1	3	1	2		2		3	1		1	2		1		1	29
30-39	1	2	2	1	3	2	2	1	2	2		2	1	2	2	1		1						1	28
40-49	4	3	4	2		1	4	3	3	1		2	2	2	1	1	1	2	3	1	4	1	2	3	50
50-59	4	4	5	2	3	3		1		3	4	1	3			1		1	1	2	1	5	2		46

60 years old or more	1	1	1	1	3	2	1		1	1	2	2	4	2	4		2	2		1	3	1	2	2	39
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Workers' number of workplace of fatal accidents in pulp/paper processing 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		1	2		1	1	1	1	1						2	2			1				2		15
10-29	3	1	2	4	4	3	2	1	3	1		1	5	2		1	1	1	1	1	2		1	1	41
30-49	2	4	4		3		2	4	1	1	4	1	1	1	1	1			1			1	1	2	35
50-99	2	1	2	4		1	2			3	1	2	1	2	2		1	2		3	2	2	1	2	36
100-299	2	1	3	2	1	3	1		1	3		3	2	3	1	2	1	3	1	2	4	4	1	2	46
300 workers or more	3	3		1	1				1	2	2	2	1		1		1		1			1			20
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Month of fatal accidents in pulp/paper processing 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	2	1	1	1	1		1	2		2		2			1	1	1	2						2	20
February	1				1	1	1	1	1	2	1				1		1		1		1		2	1	16
March	1	2	4		1	1			1	2	1	2	5	1		2		1							24
April				1			1			1			1			2		2		2				1	11
May	1		1	2	1	1		1			1	1	2												11

June	1	1	1			1	1							1	2		1			3			1	1	14
July	2	2			2				2				1	3					2		1	1		1	17
August	1		1			1			2	1					1				1		1	2	1		12
September	1	1	2	1							1	1	1		1		1				2		1	1	14
October	2	1	1	2	1	2	1				1				1	1		1	1		2	2			19
November		3	1	1	2		1	1			1	3										1	1		15
December			1	3	1	1	2	1	1	2	1			3						1	1	2			20
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

Prefecture of fatal accidents in pulp/paper processing 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	1					3	1							1				2			1				9
Aomori									1											1					2
Iwate																						1			1
Miyagi				1			1			1			3		1										7
Akita			1																						1
Yamagata																									
Fukushima										1				1									1		3
Ibaraki	1	2	1																		1				5
Tochigi		1		1		2					1					1									6
Gunma								1																	1

Saitama	1		1	1	1		1		1			1			1	1	1	2			1	1			14
Chiba												1													1
Tokyo	1						1	1							1										4
Kanagawa	1				1			1																	3
Niigata																	1								1
Toyama		1						1																	2
Ishikawa																				3		1			4
Fukui					1																				1
Yamanashi													1			1									2
Nagano																									
Gifu	1	1			1					1		2			1										7
Shizuoka	1	3	2	2	3	1	1		1	3	3	2	1	1	1	2	2	1		1			2	2	35
Aichi	1	1	3	1	1			1	1				1		1				1						12
Mie																							1		1
Shiga		1													1									1	3
Kyoto			2		1			1		2			1								1		1		9
Osaka			1	1			1			1				1		1			1	1			1	1	10
Hyogo	2					1							3	2				1			2				11
Nara																					1				1
Wakayama																									
Tottori											1											1			2
Shimane																						1			1

Okayama												1													1
Hiroshima				1	1																				2
Yamaguchi														1										1	2
Tokushima		1																	1					1	3
Kagawa	1			2															1					1	5
Ehime				1		1	1		1	1	2			1					1		1	1			11
Kochi																									
Fukuoka							1		1																2
Saga																						1			1
Nagasaki												1													1
Kumamoto			1									1										1			3
Oita	1																								1
Miyazaki			1																						1
Kagoshima									1																1
Okinawa																									
total	12	11	13	11	10	8	8	6	7	10	7	9	10	8	7	6	4	6	5	6	8	8	6	7	193

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

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