

Fatal and non-fatal accidents in other chemical products in Japan in 1999-2022

other chemical products industry Code No.010899

Type of accidents in other chemical 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	55	40	51	44	47	48	42	40	42	43	32	45	31	31	36	42	30	26	52	47	36	47	34	48	989
falling to same level	59	65	58	43	43	48	48	53	44	52	55	45	44	55	39	37	49	63	55	69	60	67	69	74	1,294
crash	18	17	13	13	12	8	19	10	17	8	10	11	11	11	14	9	9	10	16	15	14	13	22	16	316
struck by flying or falling object	31	28	19	17	14	11	16	21	17	17	17	13	20	13	11	8	15	10	21	15	16	22	9	16	397
collapse	9	11	3	1	4	8	8	8	6	5	2	2	4		5	6	2	3	3	4	4	5	4	2	109
crashed by	15	17	15	15	16	13	12	14	11	6	9	15	13	7	4	9	6	8	13	12	10	7	10	8	265
caught in/between	159	125	127	111	103	106	103	106	84	84	76	69	84	74	53	73	84	64	72	58	68	66	73	53	2,075
cut	32	34	29	23	40	21	30	20	23	17	16	15	16	14	17	17	17	8	18	15	9	10	12	15	468
injury to the sole of the foot	2		2	2			1									1	1							2	11
drown																							1		1
contact to high/low-	23	25	11	9	17	14	16	9	10	16	9	13	14	6	13	13	4	10	12	11	16	16	9	12	308

temperature																									
contact to harmful substance	7	13	14	13	12	18	15	15	10	7	11	10	11	6	6	12	9	7	9	11	11	16	11	10	264
electric shock			1	1	1			1			1		1	1	1		1	1		1	1				12
explosion	4	3	2	8	2	5	4	4	11		1	5	6	5	2	2	2	1	5	5	3	1	2	1	84
burst	2		1		4			1	2	1	1					1		1	2		1				17
fire	4	3	4		1	1		1	3	3	1	2	1	1	1					1	1	3	1		32
traffic accident (public road)	5	5	2	2	5	4	4	3	1	4	7	3	1	3	2	3	2	3		6	3	1	2	3	74
traffic accident (others)	1	1	1						1		1								1			1			7
reaction to motion/improper motion	36	43	36	34	27	32	29	40	47	40	30	40	25	30	33	28	27	41	31	45	51	59	63	57	924
others	4	2	2		1	3	3		8		3			1	1	2		3	1	1	3	3	62	7	110
unclassifiable	1	2	2		2		1			1		1		1	2	2	1			1	1	1			19
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776

Causal agents (large) of fatal and non-fatal accidents in other chemical 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	153	126	111	97	114	97	101	99	84	74	80	58	76	66	51	51	72	54	63	54	52	48	59	53	1,893

crane, conveying machine	58	55	64	33	41	38	31	42	38	37	37	35	36	29	26	34	30	28	41	41	34	36	33	30	907
other equipment	79	65	63	63	53	49	72	51	56	46	43	72	53	50	52	54	59	58	67	65	68	75	66	67	1,446
temporary buildings, establishments	71	63	66	52	56	59	66	63	53	70	55	52	45	50	42	47	50	56	68	71	59	74	70	78	1,436
substance, material	52	56	32	39	34	44	33	39	48	28	32	28	34	25	26	36	19	20	28	28	27	37	23	33	801
load	28	38	30	33	29	29	26	29	26	22	22	22	25	27	26	27	17	19	27	31	29	27	44	26	659
environment	6	7	5	4	6	4	3	4	3	10	1	6	2	5	4	4	2	7	3	7	10	11	5	8	127
others	20	24	22	15	18	20	19	19	29	17	12	16	11	7	13	12	10	17	14	20	29	30	84	29	507
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776

Causal agents (middle) of fatal and non-fatal accidents in other chemical 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			1			1					1	1								1		7
power transmission mechanism	6	7	7	4	2	5	5	4	3	2	5	3	2	3	4	1	3	2	2	2	2	1	3	1	79
woodworking machine	8	3	3	1	5	2	6	3	3	1	2	1			1	3			1	1	1		1	2	48







demolition machine																								
vehicle for high lift work													1										1	2
other construction machines						2	1			1					1									5
lathe				2		1	2		1	1		1				2		3		1		1	1	16
drill press, milling machine			1	1			1	1										1	1				1	7
grinding machine, buffing machine			1	1		1		1	1			1		1			1	1					1	10
power press				3		2			2	4	1		2	1	1		3	1	3	2		2	1	28
forging pressure hammer																								
shearing machine			1	2		1		2				1			1	1		1	1	1				12
other metal manufacturing machines			7	1		5	1	2	2	2		3	1			2		2	1		3	2	1	35
centrifugal machine								1									1		4				1	7
mixer, grinder			5	18		5	13	6	7	7	3	6	10	3	6	8	5	8	4	9	5	8	3	139
roll machine (except printingroll machine)			14	15		17	11	9	8	8	5	14	11	6	6	11	10	2	3	6	11	4	8	179







pressure vessel			1			1					3		1	1			2			1		10			
other pressure vessels									1	1					1		1		1			5			
chemical facilities			2		4		3	2	3			2		1	2	3	3	2	3	3	2	3	3	44	
gas welding equipment																			1				1		
arc welding equipment											1								1				2		
other welding equipment													1										1		
kiln, caldron			4						1		1	1		1	1		2		1	1	1	1	15		
industrial dryer						1				1	1					1				1	1		6		
other kiln, caldron																					1	1	2		
transmission			1					1		3				3			1					1	10		
electric power facilities			2		1								1										4		
other electrical equipment						1								1		1				1		1	5		
human power cranes																	1				2	3	3	9	
human power hauling equipment			9		12		6	3	10	2	3	5	8	8	6	7	5	11	9	9	19	9	9	6	156

human power machine													1	1			1		1	1					5
hand tool			12		5		12	9	8	5	3	5	3	6	5	5	3	4	4	4	3	7	5	5	113
ladder			10		11		15	12	10	13	7	15	14	12	12	16	13	11	12	19	12	16	10	15	255
slinging tool			2		1		2					2		1		1	2		1	1		1			14
other tools			7		8		15	13	15	13	13	16	11	14	11	11	14	13	16	13	16	19	21	16	275
other equipment, facilities			13		11		16	12	8	11	12	21	15	4	9	10	15	14	17	12	12	16	11	17	256
scaffolding			1		1		1	1	1		1	1		1					1						9
timbering																									
stairs, landing stage			18		7		10	19	13	17	12	12	8	5	10	21	11	8	23	17	16	19	17	16	279
opening			1				1		1	1		1	1		1	1				1	1	1		1	12
roof, beam, haze, crossbeam, principal rafter			1		4		2	1		3	1	1	1	1			1		1	1		3		1	22
working platform, boot board			11		11		10	10	8	10	15	9	11	6	5	5	10	6	7	7	6	9	7	11	174
passage			20		13		29	21	15	23	17	16	15	26	11	13	23	24	20	31	23	32	32	39	443
building, establishment			7		9		8	8	10	11	5	5	6	10	10	4	3	13	12	8	6	8	8	6	157
other temporary buildings,			7		11		5	3	5	5	4	7	3	1	5	3	2	5	5	5	7	2	6	4	95



environment								1		1		1												1					2			6
high/cold temperature environment			1		1			1	1	4	1	1	2	1	1	2			2	1	1	7	6	2	5	40						
other environments			4		2		1	2	1	3		2		4	2	1	1	4	1	6	1	2	1	3	41							
other causal agent			7		6		5	2	11	6	5	4	1		4	2	4	6	5	5	7	2	63	6	151							
no causal agent			12		12		13	17	15	10	7	12	10	6	8	8	5	10	9	14	22	28	21	23	262							
unclassifiable			3				1		3	1				1	1	2	1	1		1				15								
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776							

Workers age of fatal and non-fatal accidents in other chemical 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	13	8	11	6	9	7	5	13	6	7	4	6	2	4	6	7	5	4	5	9	4	11	7	3	162
20-29	92	84	75	72	61	63	57	54	55	45	45	44	47	40	39	49	40	30	48	37	51	56	46	46	1,276
30-39	79	88	84	82	84	87	93	78	79	81	74	68	68	68	66	66	44	49	54	51	54	76	73	61	1,707
40-49	113	92	89	67	79	70	67	68	67	58	57	72	74	55	45	78	64	81	73	81	81	71	94	75	1,771
50-59	136	128	106	82	88	85	90	92	89	75	69	68	66	62	55	36	65	62	85	81	73	69	106	85	1,953
60 years old or more	34	34	28	27	30	28	39	41	41	38	33	31	25	30	29	29	41	33	46	58	45	55	58	54	907
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776

Workers' number of workplace of fatal and non-fatal accidents in other chemical 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	77	56	61	61	68	63	62	51	59	38	37	31	29	30	22	29	32	30	32	35	25	29	29	35	1,021
10-29	108	119	109	86	64	75	73	78	64	79	48	62	74	52	55	68	55	44	76	57	53	67	60	53	1,679
30-49	77	85	57	36	50	51	53	44	44	47	49	43	55	44	33	32	43	32	45	39	36	41	46	45	1,127
50-99	89	67	69	66	63	66	68	73	61	54	54	42	41	46	44	41	35	48	53	44	52	59	56	48	1,339
100-299	92	64	69	62	84	62	79	70	88	60	68	90	57	58	60	68	66	75	81	98	90	91	127	94	1,853
300 workers or more	24	43	28	25	22	23	16	30	21	26	26	21	26	29	26	27	28	30	24	44	52	51	66	49	757
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776

Month of fatal and non-fatal accidents in other chemical 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	37	46	29	22	26	24	35	31	24	31	29	36	18	18	17	18	19	23	32	31	23	26	36	25	656
February	32	43	47	29	25	21	27	35	32	31	17	27	18	28	25	29	23	13	35	33	32	40	22	25	689
March	40	31	30	27	32	19	33	38	41	39	24	27	23	19	20	22	18	18	31	30	26	33	27	28	676
April	33	31	32	26	33	33	43	28	37	26	19	17	21	14	16	16	26	23	20	16	16	26	22	25	599
May	33	37	33	20	33	29	19	24	26	16	22	22	34	21	18	25	22	13	17	23	21	18	33	24	583
June	45	41	31	22	26	35	34	29	22	22	23	23	30	26	17	19	25	28	28	26	34	27	37	28	678

July	33	45	49	42	32	39	28	36	28	29	32	23	22	20	27	29	23	23	27	28	32	30	36	31	744
August	50	29	28	28	24	33	34	31	28	28	26	30	20	21	22	26	13	31	15	35	31	29	45	24	681
September	38	28	28	44	37	33	25	28	29	23	19	25	27	25	18	16	23	18	27	20	21	28	39	40	659
October	54	39	36	25	31	25	21	24	25	25	24	27	23	26	23	19	26	32	23	30	26	34	34	27	679
November	32	39	29	27	31	24	19	20	24	18	28	20	19	26	20	24	22	14	25	34	30	29	33	31	618
December	40	25	21	24	21	25	33	22	21	16	19	12	27	15	17	22	19	23	31	11	16	18	20	16	514
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776

Prefecture of fatal and non-fatal accidents in other chemical 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	7	8	9		3		4	7	6	3	7	5	6	3	3	5	4	6	8	5	3	6	3	7	118
Aomori	1		1										2	2											6
Iwate	2	2	2		4		8	3	3	4	2	1	1	2	4	2	2	4	3	1		5	3	5	63
Miyagi	6	8	7		3		8	2	4	2	1	4	2	9	2	2	3	3	2	5	2	2	4	1	82
Akita	1		4		1		1													1			1		9
Yamagata		1	1		2				1	2	1	3	4	3	2	1	2	2	1	1			2	1	30
Fukushima	4	3	6		4			5	5	4	4	5	5	9	3	5	3	2	8	6	5	3	9	8	106
Ibaraki	6	7	17		15		18	9	9	10	11	13	15	9	7	14	14	14	19	16	11	14	14	17	279
Tochigi	6	9	6		6		7	5	11	5	7	7	6	8	6	5	8	5	6	7	9	5	19	3	156
Gunma	16	13	11		12		9	20	17	6	6	11	8	8	3	15	9	11	9	8	13	16	25	11	257

Saitama	45	38	25		35		24	33	19	23	31	33	22	21	21	18	31	26	27	25	20	25	25	32	599
Chiba	17	16	17		9		15	9	16	23	14	15	13	15	13	10	8	8	15	14	11	15	19	17	309
Tokyo	16	16	15		17		10	9	10	10	4	4	7	2	4	5	3	5	11	4	9	12	6	4	183
Kanagawa	35	20	34		30		29	28	15	28	22	28	22	22	20	33	26	27	25	27	23	29	58	30	611
Niigata	5	4	3		4		5	3	9	6	3	2	4	4	3	1	1	1	2	5	1	6	6	7	85
Toyama	8	7	1		6		1	4	5	1	4	1	4	4	1	1	2	3	2	2	4	2		2	65
Ishikawa		1	1		1				1					2		1				1		1	2	1	12
Fukui	7	3					6	1		1			2	2	1	2	2	2	2	1	2	1	1	2	38
Yamanashi	5		2		2		1	3	1	4	4		3	3	1	2	3	2	3	1	6	3	1	4	54
Nagano	10	6	3		1		1	2	4	5	2	2	2		1	4	1	2	1		6	2	1	2	58
Gifu	11	16	8		13		14	9	8	9	5	8	9	6	6	6	4	5	3	9	6	5	13	5	178
Shizuoka	31	29	16		22		14	16	9	12	7	11	10	6	7	4	10	9	16	24	20	14	12	15	314
Aichi	19	32	27		29		27	19	22	21	21	18	18	17	15	13	9	13	22	13	20	17	15	13	420
Mie	6	16	10		3		13	9	15	13	7	6	11	9	7	3	5	10	7	7	11	6	17	8	199
Shiga	11	8	11		8		14	11	10	11	10	12	6	4	6	16	8	9	15	12	12	9	9	8	220
Kyoto	10	5	3		6		7	8	4	3	4	4	4	2	2	2	11	2	7	9	3	1	1	5	103
Osaka	66	70	56		38		43	57	48	34	46	43	21	33	30	33	30	33	28	31	24	42	38	33	877
Hyogo	29	27	24		22		24	22	22	19	18	13	24	14	21	17	13	24	17	22	29	21	25	23	470
Nara	11	7	5		2		4	4	6	4	3	2	1	4	5	5	7	4	4	11	9	2	7	3	110
Wakayama	8	2	9				7	9	7	6	6	7	5	6	13	2	5	3	8	9	6	11	8	7	144
Tottori			1					1	1	1			1	1		1			1	1	1	1	4		15



Shimane		4			1		1	1			1	1	1		1							2		1	14
Okayama	10	13	13		11		8	2	13	3	6	7	13	6	9	10	3	4	9	10	14	13	5	9	191
Hiroshima	2	6	10		7		4	4	5	3	3	2	1	2	1	3	3		3	3	2	2	4	4	74
Yamaguchi	9	6	6		5		6	8	4	4	5	3	3	2	3	2	2	2	1	4	1	9	1	1	87
Tokushima	3	2	1		2		2	1	3				3		2	2	2	4	4	2	2	4	4	6	49
Kagawa	3	2	1		3		2	4	3	5	5	2	4	4	5	5	6	2	4	2	1	3	4	3	73
Ehime	5	6	8		2		1			1		2	3	1	3	1	3		3	2	3	3	4	2	53
Kochi	1				2				1			1	2	2	1	2	1		4	1	4	3		1	26
Fukuoka	16	9	10		15		7	13	8	9	10	6	9	5	4	5	7	9	5	6	5	14	11	10	193
Saga	4	2					1			4			1	1	1		2		1	2	2	2		1	24
Nagasaki	1								5	1	1	1	1						2			1	1		14
Kumamoto	4	4			1			2	2	1			1	1	2	4	3	3		3	4	3	1	2	41
Oita	7	6	3		1		2		3	1	1	4	1	3		2	2			1			1	5	43
Miyazaki	2		3		2		2	1	1	1				1		1	1		2		2	1		3	23
Kagoshima			1				1	1	1			1		1	1				1	2	1	2	1	1	15
Okinawa	1		2		1			1		1		1	1						2						10
total	467	434	393	336	351	340	351	346	337	304	282	289	282	259	240	265	259	259	311	317	308	338	384	324	7,776

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.



drown																							1		1
contact to high/low-temperature																				1					1
contact to harmful substance			1					3		2	1								1		1			1	10
electric shock																									
explosion	2	1					1	1			1	1							1	3	1			1	13
burst																		1							1
fire			1						2																3
traffic accident (public road)					1	1				1			1											1	5
traffic accident (others)																									
reaction to motion/improper motion																									
others																									
unclassifiable																	1								1
total	4	2	3	2	5	1	2	7	2	5	3	2	3	2	1	2	3	2	4	4	3	1	1	3	67

Causal agents (large) of fatal accidents in other chemical products in 1999-2022























environment							1																	1	
high/cold temperature environment																									
other environments																									
other causal agent	2																							2	
no causal agent																									
unclassifiable																	1							1	
total	4	2	3	2	5	1	2	7	2	5	3	2	3	2	1	2	3	2	4	4	3	1	1	3	67

Workers age of fatal accidents in other chemical 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			1		1			1			1	1												1	6
30-39	1	2			2	1	1	3	1		1		2	1					2	1					18
40-49	1		1	1				1		1							1	1		2			1	1	11
50-59	1			1	2		1	1	1	3				1		2	1	1	1	1	1	1			19
60 years old or more	1		1										1	1	1		1		1		2			1	12
total	4	2	3	2	5	1	2	7	2	5	3	2	3	2	1	2	3	2	4	4	3	1	1	3	67

Workers' number of workplace of fatal accidents in other chemical 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				1		1		2	1	1	1				1	1		1	1			1	13
10-29	2		2	1	1			2							1		1	1	2	2					15
30-49	2				2		1	2	2	1			1				1		1		2			1	16
50-99		1	1	1			1	1		1	1			1											8
100-299					2						1	1	1	1		2			1			1	1	1	12
300 workers or more								1		1										1					3
total	4	2	3	2	5	1	2	7	2	5	3	2	3	2	1	2	3	2	4	4	3	1	1	3	67

Month of fatal accidents in other chemical 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		1			1					1						1			1						5
February	2			1				1				1	1							1					7
March		1					1																2		4
April								1		3															4
May													2	1			1				2				6
June					1	1		1										1		2					6







Shimane																									
Okayama																									
Hiroshima			1																					1	
Yamaguchi							1													1				2	
Tokushima																									
Kagawa													1			1								2	
Ehime					1																			1	
Kochi																									
Fukuoka	2			1			1																	4	
Saga																									
Nagasaki																									
Kumamoto																									
Oita																									
Miyazaki																							1	1	
Kagoshima																									
Okinawa																									
total	4	2	3	2	5	1	2	7	2	5	3	2	3	2	1	2	3	2	4	4	3	1	1	3	67

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

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