Fatal and non-fatal accidents in non organic or organic chemical products in Japan in 1999-2021

non organic or organic chemical products industry Code No.010801

Type of accidents in non organic or organic chemical products in 1999-2021

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Type of accidents
fall from height	34	46	49	38	40	44	41	40	39	48	30	37	39	36	21	30	26	44	22	30	35	29	19	817	fall from height
falling to same level	37	34	37	28	42	46	41	43	43	36	29	35	47	35	30	39	29	39	30	36	38	32	42	848	falling to same level
crash	15	11	16	17	19	10	11	19	15	11	8	10	13	6	13	12	5	8	3	13	9	13	12	269	crash
struck by flying or falling object	18	17	23	14	16	18	18	14	14	13	6	13	10	5	7	14	11	6	11	8	7	9	11	283	struck by flying or falling object
collapse	8	6	2	1	6	1	3	4	5	7	2	7	3	3	1	3	1	5	1	3	4	3	4	83	collapse
crashed by	10	19	7	11	9	14	8	14	10	10	5	10	6	4	9	10	4	4	8	4	10	8	8	202	crashed by
caught in/between	79	88	61	76	73	61	74	55	59	57	51	44	40	45	40	47	50	40	47	43	59	38	46	1,273	caught in/between
cut	9	15	10	12	20	19	18	10	8	12	12	6	11	12	6	9	5	10	9	6	8	6	6	239	cut
injury to the sole of the foot	1	1	2				1			1		2					2	3		1		2	1	17	injury to the sole
drown																		1						1	drown
contact to high/low- temperature	18	18	16	27	12	17	11	24	19	13	12	12	11	6	15	11	11	13	15	8	14	13	21	337	contact to high/low- temperature

contact to harmful																									contact to
	29	28	34	26	20	33	27	25	38	14	15	17	20	16	15	9	25	25	20	20	18	17	20	511	harmful
substance																									substance
electric shock		1		1	1		1		1	1		1			1				2	1	1			12	electric shock
explosion	5	15	7	3	4	9	7	3	5	3	6	5	5	14	2	6	1	4		3	7	1	7	122	explosion
burst		1	1	1	1			1	1	1									1	1				9	burst
fire	1		3	1	4	3	3	5	6	1	3		2	3		1	2	2		2	1	2	1	46	fire
traffic accident (public	1	6	6	4	5	4	3	4		1	1	4	3		2	1		6	3	1	1	3	1	60	traffic accident
road)	I					4	3	4					3									3	I	00	(public road)
traffic accident																							1	1	traffic accident
(others)																							ľ	<u> </u>	(others)
reaction to																									reaction to
motion/improper	40	23	28	32	30	26	38	36	43	32	35	22	27	19	26	24	15	29	26	28	22	34	48	683	motion/improper
motion																									motion
others		2		1	1	1	1	3	5	3	1	2	2		2	2	3	1		6		1	19	56	others
unclassifiable	1		2	1		1			1							3		2		1	1		1	14	unclassifiable
total	306	331	304	294	303	307	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,883	total

Causal agents (large) of fatal and non-fatal accidents in non organic or organic chemical 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		Causal (L)
Causar (L) agents		2000	2001	2002	2003	2004	2003	2000	2007	2000	2003	2010	2011	2012	2013	2014	2013	2010	2017	2010	2017	2020	2021		agents
machine	68	73	55	53	59	58	53	54	48	49	45	41	30	44	31	33	39	30	35	29	40	25	34	1,026	machine
crane, conveying																									crane,

machine	38	49	43	45	37	29	39	38	29	31	20	23	30	17	22	25	23	22	29	18	29	24	22	682	conveying
machine																									machine
athor aguinment	53	64	53	59	76	60	66	54	61	58	51	62	49	51	39	63	32	59	32	44	42	45	61		other
other equipment	33	04	33	39	76	00	00	34	01	36	31	02	49	וכו	39	03	32	39	52	44	42	43	01	1,234	equipment
to many a many lavel discours																									temporary
temporary buildings, establishments	44	47	54	42	55	57	46	62	66	58	34	38	60	47	38	50	32	55	42	53	63	50	44	1,137	buildings,
establistifferits																									establishments
substance, material	54	56	61	50	35	60	49	44	57	29	25	32	35	27	30	18	38	40	32	29	31	25	36	893	substance,
substance, material	34	30	01	30	33	00	47	44	57	29	23	32	33	27	30	10	36	40	32	29	31		30		material
load	20	24	23	29	24	20	24	29	27	26	19	11	18	7	9	16	11	17	12	20	13	14	19	432	load
environment	8	4	5	1	3	7	6	6	5	1	4	6	7	4	6	4	2	7	3	4	8	8	12	121	environment
others	21	14	10	15	14	16	23	13	19	12	18	14	10	7	15	12	13	12	13	18	9	20	40	358	others
total	306	331	304	294	303	307	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,883	total

Causal agents (middle) of fatal and non-fatal accidents in non organic or organic chemical 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	1					1		1						1		5	engine
power transmission mechanism	8	2	4	3	7	1	6	5	1	3	5	4	2	3	6	3	2	4	2	3	3	2	2	81	power transmission mechanism
woodworking machine	1	2	1	3	4	2	3	2	4	1	2	3	1			1		1	1	1		1	1	35	woodworking machine

construction machine	1	2	1		1	1				1	1	1				1					2			12	construction
																									machine
metal manufacturing machine	7	7	7	5	4	5	4	3	2	5	2	1	5	5	1	3	3	1	3	3	3	2	2	83	metal manufacturing machine
general machine	51	60	42	42	43	49	40	43	40	39	35	32	22	35	24	24	34	24	29	22	32	19	29	810	general machine
mobile silviculture machine																									mobile silviculture machine
crane	4		4	1	1	1	2	2	1	4	1	3	1			2	3	2	1	1	5	3	2	44	crane
conveying machine	31	43	32	40	30	23	33	31	25	25	19	16	23	17	20	22	20	14	25	16	24	19	18	566	conveying machine
vehicle	3	6	7	4	6	5	4	5	3	2		4	6		2	1		6	3	1		2	2	72	vehicle
pressure vessel	2	1	1	6	4	2	1	7	3	3	5	5	1	6	1	1	1	2		1	1		1	55	pressure vessel
chemical facilities	5	7	6	5	9	9	12	10	8	6	8	5	12	12	6	10	4	4	2	10	6	1	16	173	chemical facilities
welding equipment																1								1	welding equipment
kiln, caldron	5	2	5	5	5	3	2	4	1	3	3	2	3		2	1	1	2	2	1	1	2		55	kiln, caldron
electric equipment	2	1	1	1	1	1	1			1		2		1	1	2		1	2		1	1	1	21	electric equipment
human power machine, tools	11	10	6	9	11	10	17	6	7	13	8	15	9	9	7	11	3	7	9	7	11	13	10	219	human power machine, tools

tools	15	25	24	21	33	26	23	21	27	21	18	23	18	14	11	22	16	29	12	16	14	18	25	472	tools
other equipments,	13	18	10	12	13	9	10	6	15	11	9	10	6	9	11	15	7	14	5	9	8	10	8		other equipments, facilities
temporary buildings, establishments	44	47	54	42	55	57	46	62	66	58	34	38	60	47	38	50	32	55	42	53	63	50	44		temporary buildings, establishments
hazards, harmful substances	42	49	49	40	24	45	38	34	47	20	20	23	22	18	20	10	32	29	23	23	25	20	26	679	hazards, harmful substances
materials	12	7	12	10	11	15	11	10	10	9	5	9	13	9	10	8	6	11	9	6	6	5	10	214	materials
load	20	24	23	29	24	20	24	29	27	26	19	11	18	7	9	16	11	17	12	20	13	14	19	432	load
natural environment	8	4	5	1	3	7	6	6	5	1	4	6	7	4	6	4	2	7	3	4	8	8	12	121	natural environment
other causal agent	5	3	2	3	5	5	4	2	5	2		4	1	3	6	3	1	3	2	7	2	4	22	94	other causal
no causal agent	15	10	5	12	9	10	19	11	13	9	17	10	8	4	9	7	12	6	11	11	6	16	17	247	no causal agent
unclassifiable	1	1	3			1			1	1	1		1			2		3			1		1	17	unclassifiable
total	306	331	304	294	303	307	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,883	total

Causal agents (small) of fatal and non-fatal accidents in non organic or organic chemical 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	1					1		1						1		5	engine
power transmission mechanism		4	7	6	5	1	3	5	4	2	3	6	3	2	4	2	3	3	2	2	67	power transmission mechanism
circular sawing machine			1	2	2	1	1	1	3	1					1	1				1	15	circular sawing machine
band sawing machine			2	1		2											1				6	band sawing machine
wood planer machine													1								1	wood planer machine
hollow chisel mortiser, wood borer																						hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																						chamfering machine, router, woodworking milling machine
chain saw								1													1	chain saw
other woodworking machines		1	1			1													1		4	other woodworking machines
leveling, transporting or loading machine							1	1					1					1				leveling, transporting or loading machine
excavating machine			1															1			2	excavating machine
foundation work																						foundation work

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hardening machine																					hardening machine
demolition machine																					demolition machine
vehicle for high lift work								1												1	vehicle for high lift work
other construction machines	1																			1	other construction machines
lathe	2	1		1				1	1							1			1	8	lathe
drill press, milling machine	1					1			1	1	1	1			1					7	drill press, milling machine
grinding machine, buffing machine		1				1			1	2			1		1					7	grinding machine, buffing machine
power press	1	1	1	1			1			1		1	1	1	1		1	1	1	13	power press
forging pressure hammer					1															1	forging pressure hammer
shearing machine	2	1		1		1	1									1	1			8	shearing machine
other metal manufacturing machines	1		3		1	2			2	1		1	1			1	1	1		15	other metal manufacturing machines
centrifugal machine				1		1	1		1				2	1	1	3		1		12	centrifugal machine
mixer, grinder	7	7	4	8	6	7	4	6	1	7	4	7	7	7	9	4	8	3	5	111	mixer, grinder
roll machine (except printingroll machine)	8	5	5	3	7	4	9	6	1	6	5	4	2	2	1	2	4	2	6	82	roll machine (except printingroll machine)
injection molding																					injection molding

machine			1	2	1	2	1	1		1	3			1	1			1	1	1	17	machine
food manufacturing				1		1		2			1						1				6	food manufacturing
printing machine			1	1	2					1	1			1		2		1		1	11	printing machine
industrial robot							1							1							2	industrial robot
other general power machines		27	29	27	28	24	25	18	20	17	17	15	13	20	13	16	12	18	12	16	367	other general power machines
felling machine																						felling machine
mobile logging machine																						mobile logging
skyline yarding machine																						skyline yarding machine
other mobile silviculture machine																						other mobile silviculture machine
crane		4		2	1	1	1		2	1			2	1				4	1	1	21	crane
mobile crane							2								2						4	mobile crane
derrick crane																						derrick crane
elevator, lift			1				1							2			1	1	2		8	elevator, lift
cargo lifting appliance																						cargo lifting appliance
gondola																						gondola
lumberyard																						lumberyard
equipment, logging																						equipment, logging
cableway																						cableway

			$\sqsubseteq$		$\square$		<u> </u>																	
simple skyline																								simple skyline
yarding equipment																								yarding equipment
other powered																							_	other powered
crane										I								I				ľ	5	crane
truck		8		1		4	1	3	5	5	6	3		2	5	3	3	3	3	3	6	3	67	truck
forklift		14		16		21	19	8	8	7	6	12	6	10	10	12	6	18	7	13	5	7	205	forklift
railway equipment								1				2								1			4	railway equipment
conveyor		10		13		6	9	12	10	5	2	5	11	7	6	5	4	2	6	5	7	6	131	conveyor
loader										1				1									2	loader
straddle carrier																								straddle carrier
rough terrain hauler																								rough terrain hauler
other powered						2	2	1	2	1	2	1			1		1	2		2	1	2	20	other powered
conveying machines																							20	conveying machines
cars, bus,		5		5		4	4	2	2		3	4		2	1		6	2			2	2	44	cars, bus,
motorcycle															'									motorcycle
railway vehicle																								railway vehicle
other vehicles		2		1			1	1			1	2						1	1				10	other vehicles
boiler							1																1	boiler
pressure vessel		1		3		1	6	1	1	4	4		5	1		1	1						29	pressure vessel
other pressure				1						1	1	1			1		1		1	1			14	other pressure
vessels								2	2		<u> </u>	L										Ľ	14	vessels
chemical facilities		6		9		12	10	8	6	8	5	12	12	6	10	4	4	2	10	6	1	16	147	chemical facilities
gas welding																								gas welding

equipment																						equipment
arc welding equipment																						arc welding equipment
other welding equipment													1								1	other welding equipment
kiln, caldron		3	2	1			2	2	2	2				1	1	1	1	1	1		20	kiln, caldron
industrial dryer		2	3	1	2	1	1			1		2	1			1			1		16	industrial dryer
other kiln, caldron					2			1							1						4	other kiln, caldron
transmission																1		1	1	1	4	transmission
electric power facilities			1	1			1		1			1	1		1						7	electric power
other electrical equipment		1							1		1		1			1					5	other electrical equipment
human power cranes		1				1	2		1					1		1	1	1	1	3	13	human power cranes
human power hauling equipment		2	6	9	3	3	3	6	9	6	7	3	3	2	2	5	4	7	6	4	90	human power hauling equipment
human power					1		1					1	1								4	human power machine
hand tool		3	5	8	2	3	7	2	5	3	2	3	7		5	3	2	3	6	3	72	hand tool
ladder		12	17	16	6	13	12	11	14	10	8	5	12	11	12	7	7	6	12	11	202	ladder
slinging tool		1	2					1	2							1		1		2	10	slinging tool
other tools		11	14	7	15	14	9	6	7	8	6	6	10	5	17	4	9	7	6	12	173	other tools
other equipment,																						other equipment,

facilities		10	13	10	6	15	11	9	10	6	9	11	15	7	14	5	9	8	10	8	186	facilities
scaffolding		2		2	1	1	2		1	1				1		2	1	2	1	1	18	scaffolding
timbering																						timbering
stairs, landing stage		10	12	11	16	14	14	9	9	15	12	9	14	4	8	11	18	20	12	7	225	stairs, landing stage
opening			1	1	1	3	2		1	1	1		1	1				1	2		16	opening
roof, beam, haze, crossbeam, principal rafter		1	1	2		3	1		1	2		1	1		2			3	1	1	20	roof, beam, haze, crossbeam, principal rafter
working platform, boot board	8	3	12	6	10	6	6	8	5	6	10	2	5	8	9	2	1	4	5	3	116	working platform, boot board
passage		16	11	14	19	20	18	9	6	21	12	14	18	10	22	16	20	20	14	23	303	passage
building, establishment		12	10	9	9	16	11	4	9	10	9	8	8	6	7	8	9	7	5	5	162	building, establishment
other temporary buildings, establishments		5	8	1	6	3	4	4	6	4	3	4	3	2	7	3	4	6	10	4	87	other temporary buildings, establishments
explosive substance	3	3		3		3	1		1	1	1	1				2		1	1	1	19	explosive substance
inflammable substance		5	5	2	2	4	2	3	3	3	2	1		3	1	1	3	5	2	2	49	inflammable substance
inflammable gas		3		2	1			4			1	1			2					1	15	inflammable gas
harmful substance		22	9	18	17	26	8	6	10	12	10	6	8	18	17	11	11	9	4	8	230	harmful substance
radiation																						radiation
other hazards,		16	10	13	14	14	9	7	9	6	4	11	2	11	9	9	9	10	13	14	190	other hazards, harmful substances

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metal material	8	3		5		3	2	6	5	2	2	4	5	5	3	3	6	3	3	2	2	5	74	metal material
lumber, bamboo	1	l				2					3				1	1							8	lumber, bamboo
stone, sand, substance				1							1		1										3	stone, sand, substance
other materials	3	3		5		6	8	4	4	3	3	9	3	5	4	2	5	6	3	4	3	5	85	other materials
load	2	22		22		23	26	23	26	15	11	17	7	9	15	9	17	12	19	13	14	18	318	load
machine/equipment as load	1	l		2		1	3	4		4		1			1	2			1			1	21	machine/equipment as load
natural ground,						1				1	1		1	1								1	6	natural ground, rock
standing tree													1										1	standing tree
water						1									1		1					1	4	water
abnormal environment	2	2				1			1			1									2		7	abnormal environment
high/cold temperature environment	1	l				1	5	3		1	3	3	1	2	2	1	3	3	3	7	5	7		high/cold temperature environment
other environments	2	2		3		2	1	2		2	2	3	1	3	1	1	3		1	1	1	3	32	other environments
other causal agent	2	2		5		4	2	5	2		4	1	3	6	3	1	3	2	7	2	4	22	78	other causal agent
no causal agent	5	5		9		19	11	13	9	17	10	8	4	9	7	12	6	11	11	6	16	17	200	no causal agent
unclassifiable	3	3						1	1	1		1			2		3			1		1	14	unclassifiable
total	3	304		303		306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	4,645	total

Workers age of fatal and non-fatal accidents in non organic or organic chemical 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	10	8	2	5	4	6	7	3	9	4	5	5	2	3	4	6	2	7	4	5	6	1	4	112	19 years old or less
20-29	62	81	69	65	66	60	57	67	57	45	40	40	38	40	34	34	29	47	27	35	46	26	31	1,096	20-29
30-39	59	64	69	60	80	81	88	79	74	67	58	73	55	50	51	46	50	44	43	45	45	35	66	1,382	30-39
40-49	72	60	61	56	58	56	48	57	51	49	45	41	52	51	39	59	39	57	58	51	48	59	72	1,239	40-49
50-59	80	98	72	81	75	84	77	77	91	69	47	42	64	37	46	55	46	58	41	55	58	57	60	1,470	50-59
60 years old or	23	20	31	27	20	20	29	17	30	30	21	26	28	23	16	21	24	29	25	24	32	33	35	584	60 years old or
more												20									J2			l 1	more
total	306	331	304	294	303	307	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,883	total

Workers' number of workplace of fatal and non-fatal accidents in non organic or organic chemical 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	46	43	36	35	40	44	42	37	34	18	24	20	21	16	15	16	10	11	12	17	13	14	14	578	9 workers or less
10-29	63	54	55	66	64	68	60	56	49	44	39	44	52	45	41	44	41	49	38	35	46	34	43	1,130	10-29
30-49	47	71	60	45	49	42	41	44	59	48	26	37	37	38	30	29	22	38	22	44	35	45	45	954	30-49
50-99	49	59	54	54	53	54	53	65	59	48	30	51	39	27	30	43	46	56	46	43	52	30	50	1,091	50-99
100-299	55	64	56	63	62	67	70	56	68	67	69	43	48	43	43	52	47	56	60	38	57	56	66	1,306	100-299
300 workers or	46	40	43	31	35	32	40	42	43	39	28	32	42	35	31	37	24	32	20	38	32	32	50	824	300 workers or
more																									more
total	306	331	304	294	303	307	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,883	total

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	24	27	31	22	35	28	20	27	16	24	16	30	23	12	16	23	14	22	22	19	18	17	22	508	January
February	32	30	27	25	31	24	22	30	21	28	17	17	23	22	16	16	13	14	17	14	17	16	23	495	February
March	23	28	28	26	21	18	29	24	34	26	12	13	14	17	16	17	7	22	20	18	20	17	16	466	March
April	18	20	30	28	23	19	15	23	26	25	23	16	22	17	10	12	18	23	13	25	17	14	18	455	April
May	27	28	20	23	22	22	22	25	16	17	18	20	14	18	12	29	15	28	25	24	25	25	23	498	Мау
June	31	38	19	21	25	36	29	26	33	24	19	18	17	16	14	22	14	17	15	19	18	20	26	517	June
July	20	31	26	29	26	27	32	29	28	18	23	33	21	17	30	17	20	21	10	17	16	17	24	532	July
August	28	30	29	30	29	30	35	25	37	25	20	16	19	20	17	15	19	16	17	21	27	22	33	560	August
September	27	27	24	21	29	26	34	22	26	22	10	20	17	21	11	20	14	20	14	15	22	21	37	500	September
October	33	18	21	27	21	31	26	22	31	22	12	12	21	19	21	18	16	25	9	17	27	11	17	477	October
November	19	28	22	22	18	19	23	26	20	18	19	13	28	11	13	12	21	21	20	15	14	17	15	434	November
December	24	26	27	20	23	27	19	21	24	15	27	19	20	14	14	20	19	13	16	11	14	14	14	441	December
total	306	331	304	294	303	307	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,883	total

Prefecture of fatal and non-fatal accidents in non organic or organic chemical 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	7	6			1		2	2	7	2	6	2	1	3	2	2	2		1	3	3	3	3	58	Hokkaido
Aomori	2	1					1				2	1	1									1	1	10	Aomori
lwate	1	2	3				1		1	1	1		2			1							1	14	lwate

Miyagi			1	2	2	3	2	1	2	1	5	2			1	1	1			1	2	27	Miyagi
Akita		1	1	1				5			1	3		2		2	1				3	20	Akita
Yamagata			1	1	1	2	1					1	1	2	1	3	1	1				16	Yamagata
Fukushima	13	9	7	10	14	13	18	7	14	9	10	3	7	3	5	12	4	6	9	5	14	192	Fukushima
Ibaraki	7	17	12	14	14	15	13	16	13	11	12	15	15	8	16	11	8	6	11	10	12	256	lbaraki
Tochigi	5	2	1	2	1	1	3	4	4	1	3	5	4		1	3	1		5	1	4	51	Tochigi
Gunma	4	15	9	4	10	4	10	7	5	4	7	3	4	5	2	4	3	7	5	6	3	121	Gunma
Saitama	17	24	15	17	15	15	16	15	15	15	14	13	12	19	11	18	20	11	13	17	13	325	Saitama
Chiba	15	15	21	12	17	16	15	11	7	16	6	7	16	6	17	21	9	15	6	17	14	279	Chiba
Tokyo	7	2	4	6	11	4	1	2	2	6		2	2	3	3	1	3	2	4	1	1	67	Tokyo
Kanagawa	5	6	11	14	13	13	15	11	14	10	10	4	8	9	5	13	7	8	7	11	14	208	Kanagawa
Niigata	13	13	11	11	8	12	10	15	8	7	11	7	8	5	5	10	4	3	6	8	11	186	Niigata
Toyama	6	7	1	6	2	7	4	6	3	4	4	2	3	7	5	5	5	3	8	4	9	101	Toyama
Ishikawa	1	2	3	1		1	2	1	1	3		1		1				1				18	Ishikawa
Fukui	2	3	12	3	6	7	7	5	2	5	5	6		8	6	9	3	10	5	5	7	116	Fukui
Yamanashi		1		1		1		1					1				2	1	1		1	10	Yamanashi
Nagano		1	3	1	1	2	1	3		1		1		3		4	2	2		3	2	30	Nagano
Gifu	4	6	5	4	3	3	4	8	4	6	5	3	2	3	1		3	1	6	1	7	79	Gifu
Shizuoka	11	10	15	17	12	8	15	7	11	7	12	6	9	11	10	11	8	7	15	6	12	220	Shizuoka
Aichi	15	15	16	15	11	15	9	6	6	10	11	6	10	13	5	10	7	10	13	8	8	219	Aichi
Mie	16	20	14	18	14	14	14	17	8	11	9	11	8	18	4	9	13	4	8	6	9	245	Mie
Shiga	2	5	3	7	4	4	5	6	4	4	3	3	3	6	1	3	5	1	5	2		76	Shiga
Kyoto	10	8	5	10	5	10	4	4		1	3	6		4	3	3	2	2	5	7	3	95	Kyoto

Osaka	40	29	42	28	33	33	31	21	26	27	24	13	16	34	12	25	22	28	15	20	15	534	Osaka
Hyogo	20	27	14	22	19	19	11	23	12	10	11	18	14	13	14	12	17	20	20	10	19	345	Hyogo
Nara		2	1	1	2	2	2		2		1	1				2					3	19	Nara
Wakayama	9	12	8	7	10	8	8	3	2	7	12	5	8	2	3	2	6	8	6	7	7	140	Wakayama
Tottori	2		2																			4	Tottori
Shimane	1			1	1			1	1	2			1					1	1			10	Shimane
Okayama	6	4	12	9	4	12	12	7	2	4	6	5	5	8	8	8	2	5	4	6	6	135	Okayama
Hiroshima	6	3	8	5	6	6	7	6	4	4	4	5	3	2	5	5	9	5	7	3	2	105	Hiroshima
Yamaguchi	15	19	9	12	19	15	17	12	5	8	11	13	10	11	16	11	10	12	16	12	15	268	Yamaguchi
Tokushima	8	6	6	8	9	5	13	7	6	3	9	4	1	1	6	3	4	5	9	2	6	121	Tokushima
Kagawa	8	3	4	7	8	1	5	4	4	1	2	2	2		2	2		4	5	2	4	70	Kagawa
Ehime	1	5	5	6	6	3	4	3	1	5	7	6	2		2		3	3	2	5	7	76	Ehime
Kochi		2	1	2	1	1		1		1		1	1		1	2	1		1	2	1	19	Kochi
Fukuoka	18	17	11	11	9	6	17	10	10	10	12	7	5	6	6	10	6	11	8	8	15	213	Fukuoka
Saga	1	2		1	1	4	2	2	2	2	1	3		2			2	2	1		1	29	Saga
Nagasaki			1			4					1	1	1					1	1			10	Nagasaki
Kumamoto	1	2	2		3	3	3	1	2	1		2	1		7	1			1	1	2	33	Kumamoto
Oita	5	1	3	2	1	5		1	1	2	3	4	2	2	1	3	1	1	2	3	7	50	Oita
Miyazaki		2			3		1		2	2		1	3		2	1		1	1	5	3	27	Miyazaki
Kagoshima	2	4		3	3	1	2	1	2	1				1	1	1		3		1	1	27	Kagoshima
Okinawa			1							2						1	2	1		1		8	Okinawa
total	306	331	304	303	306	300	312	264	216	227	239	204	190	221	190	242	198	215	235	211	268	5,282	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: <a href="https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm">https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm</a> (MHLW, Japan)

Return to <a href="https://www.jisha.or.jp/english/statistics/2021e\_industry.html">https://www.jisha.or.jp/english/statistics/2021e\_industry.html</a>

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Fatal accidents in non organic or organic chemical products in Japan in 1999-2021

non organic or organic chemical products industry Code No.010801

Type of fatal accidents in non organic or organic chemical products in 1999-2021

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Type of accidents
fall from height			1			1	1						1					1			1			6	fall from height
falling to same level				1		1											1							3	falling to same level
crash																									crash
struck by flying or falling object	1									1														2	struck by flying or falling object
collapse									1											1				2	collapse
crashed by																									crashed by
caught in/between		2	1	1			1	1		1	1	1				1	2							12	caught in/between
cut																									cut

injury to the sole of																							injury to the sole
the foot																							of the foot
drown																		1				1	drown
contact to high/low- temperature	1	1																					contact to high/low- temperature
contact to harmful substance	3	1	3		1	2	1			1		1	1			2	1	2	2		1		contact to harmful substance
electric shock		1			1										1							3	electric shock
explosion		4				2				1	5		1	1		3						17	explosion
burst																							burst
fire					1									3			1					5	fire
traffic accident (public road)				1											1							2	traffic accident (public road)
traffic accident (others)																							traffic accident (others)
reaction to motion/improper motion																							reaction to motion/improper motion
others			1														1					2	others
unclassifiable															1							1	unclassifiable
total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4	3	1	1	80	total

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	1	2	1				1			1	1	1		2		1	1							12	machine
crane, conveying machine		1	1	2		1		1							1		1				1			9	crane, conveying machine
other equipment		1	1	1	1	1				1	5		1	1	1	3	2							19	other equipment
temporary buildings, establishments	1						1						1					1							temporary buildings, establishments
substance, material	2	4	1		2	3				2		1	1	1		1	1	2		1				22	substance, material
load									1											1				2	load
environment	1	1	2			1	1									1		1		1		1		10	environment
others															1		1							2	others
total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4		3	1	1		80	total

Causal agents (middle) of fatal accidents in non organic or organic chemical products in 1999-2021

Causal (M) agents	1000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010	2020	2021	total	Causal (M)
causai (ivi) agerits	1999	2000	2001	2002	2003	2004	2003	2000	2007	2008	2009	2010	2011	2012	2013	2014	2013	2010	2017	2010	2019	2020	2021	totai	agents

engine																				engine
power transmission mechanism																				power transmission mechanism
woodworking machine																				woodworking machine
construction machine																				construction machine
metal manufacturing machine																				metal manufacturing machine
general machine	1	2	1			1		1	1	1		2		1	1				12	general machine
mobile silviculture machine																				mobile silviculture machine
crane							1										1		2	crane
conveying machine		1	1	1	1										1				5	conveying machine
vehicle				1									1						2	vehicle
pressure vessel				1								1							2	pressure vessel
chemical facilities								1	5		1			3	1				11	chemical facilities
welding equipment																				welding equipment

				1			 ]		 							1		 		<u>I</u>
kiln, caldron			1											1					2	kiln, caldron
electric equipment				1															1	electric equipment
human power machine,																				human power
tools																				machine, tools
tools					1														1	tools
other equipments, facilities		1										1							2	other equipments, facilities
temporary buildings, establishments	1					1				1					1				4	temporary buildings, establishments
hazards, harmful substances	2	4	1	1	3			1	1	1	1		1	1	2		1		20	hazards, harmful substances
materials				1				1											2	materials
load							1										1		2	load
natural environment	1	1	2		1	1							1		1		1	1	10	natural environment
other causal agent																				other causal agent
no causal agent														1					1	no causal agent
unclassifiable												1							1	unclassifiable
	===	===		 			 		 									 	 	

total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4		3	1	1		80	total	
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Causal agents (small) of fatal accidents in non organic or organic chemical 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																									engine
power transmission																									power transmission
mechanism																									mechanism
circular sawing																									circular sawing
machine																									machine
band sawing																									band sawing
machine																									machine
wood planer																									wood planer
machine																									machine
hollow chisel																									hollow chisel
mortiser, wood																									mortiser, wood
borer																									borer
chamfering																									chamfering
machine, router,																									machine, router,
woodworking																									woodworking
milling machine																									milling machine
chain saw																									chain saw
other woodworking																									other woodworking
machines																									machines

leveling,												leveling,
transporting or												transporting or
loading machine												loading machine
excavating machine												excavating machine
foundation work												foundation work
machine												machine
hardening machine												hardening machine
demolition machine												demolition machine
vehicle for high lift												vehicle for high lift
work												work
other construction												other construction
machines												machines
lathe												lathe
drill press, milling												drill press, milling
machine												machine
grinding machine,												grinding machine,
buffing machine												buffing machine
power press												power press
forging pressure												forging pressure
hammer												hammer
shearing machine												shearing machine
other metal												other metal
manufacturing												manufacturing
machines												machines

centrifugal machine																	centrifugal machine
mixer, grinder		1			1				1							3	mixer, grinder
roll machine (except printingroll machine)								1								1	roll machine (except printingroll machine)
injection molding machine																	injection molding machine
food manufacturing machine																	food manufacturing
printing machine																	printing machine
industrial robot												1				1	industrial robot
other general power machines	1	1	1				1			2	1					7	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						1										1	crane
mobile crane																	mobile crane
derrick crane																	derrick crane
elevator, lift														1		1	elevator, lift

cargo lifting															cargo lifting
appliance															appliance
gondola															gondola
lumberyard															lumberyard
equipment, logging															equipment, logging
cableway															cableway
simple skyline															simple skyline
yarding equipment															yarding equipment
other powered															other powered
crane															crane
truck															truck
forklift		1		1										2	forklift
railway equipment															railway equipment
conveyor	1		1							1				3	conveyor
loader															loader
straddle carrier															straddle carrier
rough terrain hauler															rough terrain hauler
other powered															other powered
conveying machines															conveying machines
cars, bus,									1						cars, bus,
motorcycle														2	motorcycle
railway vehicle															railway vehicle
other vehicles															other vehicles
boiler															boiler

	-				 	 	-	-	 		 		 	 	 	-	
pressure vessel										1						1	pressure vessel
other pressure			1													1	other pressure
vessels																	vessels
chemical facilities							1	5	1		3	1				11	chemical facilities
gas welding																	gas welding
equipment																	equipment
arc welding																	arc welding
equipment																	equipment
other welding																	other welding
equipment																	equipment
kiln, caldron		1										1				2	kiln, caldron
industrial dryer																	industrial dryer
other kiln, caldron																	other kiln, caldron
transmission																	transmission
electric power				1												1	electric power
facilities																	facilities
other electrical																	other electrical
equipment																	equipment
human power																	human power
cranes																	cranes
human power																	human power
hauling equipment																	hauling equipment
human power																	human power
machine																	machine

hand tool															hand tool
ladder				1										1	ladder
slinging tool															slinging tool
other tools															other tools
other equipment,		1							1					2	other equipment,
scaffolding															scaffolding
timbering															timbering
stairs, landing stage															stairs, landing stage
opening															opening
roof, beam, haze, crossbeam, principal rafter								1			1			2	roof, beam, haze, crossbeam, principal rafter
working platform, boot board															working platform, boot board
passage					1									1	passage
building, establishment	1													1	building, establishment
other temporary buildings, establishments															other temporary buildings, establishments
explosive substance				1										1	explosive substance
inflammable substance				1										1	inflammable substance

		===		_	_			 		 			 	===	:	-		_	_	-	:
inflammable gas																					inflammable gas
harmful substance	2					1			1	1	1		1	1	2		1			11	harmful substance
radiation																					radiation
other hazards,		4	1		1							1								7	other hazards,
harmful substances		4	ľ									I									harmful substances
metal material																					metal material
lumber, bamboo																					lumber, bamboo
stone, sand,																					stone, sand,
substance																					substance
other materials					1				1											2	other materials
load								1									1			2	load
machine/equipment																					machine/equipment
as load																					as load
natural ground,																					natural ground,
rock																					rock
standing tree																					standing tree
water															1					1	water
abnormal	1	1	2			1	1						1				1	1		9	abnormal
environment						'															environment
high/cold																					high/cold
temperature																					temperature
environment																					environment
other environments																					other environments
other causal agent																					other causal agent

	<u> </u>		<u> </u>	<u> </u>	<u> </u>		<u> </u>		<u> </u>	<u> </u>	<u> </u>				 $\Box$			 <u> </u>	<u> </u>				
no causal agent																	1					1	no causal agent
unclassifiable															1							1	unclassifiable
total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4	3	1	1	80	total

Workers age of fatal accidents in non organic or organic chemical 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											1													1	19 years old or less
20-29		1	1	1		2	1						1	1	2	2				1				13	20-29
30-39	1	3	1		1	1				2	3	1	1	1		2	4	2		1				24	30-39
40-49	2	2	2			1				1	2	1				1	1			1	1			15	40-49
50-59	1	3	2	2	2	2	2	1	1	1			1	1		1								20	50-59
60 years old or more	1													1	1		1	2				1		7	60 years old or more
total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4		3	1	1		80	total

Workers' number of workplace of fatal accidents in non organic or organic chemical 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									1								1	1						3	9 workers or less
10-29		6		1	1	2				1			1	1		1	3					1		18	10-29
30-49	2	1	3		1	1	2	1		2					1	1		1		1	1			18	30-49
50-99				2	1	1						1				1		1						7	50-99
				$\Box$						$\overline{}$			$\Box$						$\Box$						

100-299	1		2			2				1	6		1	2	2	3	1	1	1			23	100-299
300 workers or 2	2	2	1				1					1	1	1			1		1			11	300 workers or
total 5	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4	3	1	1	<u>                                     </u>	total

Month of fatal accidents in non organic or organic chemical 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			1										1			3	1							6	January
February						1								1										2	February
March	2		1			1				1				2				1		2				10	March
April						1				1				1				1				1		5	April
May	1											1				1	1	1						5	May
June	1	4									1													6	June
July		1	2			1		1							1		1							7	July
August		1		1	2					1					1									6	August
September		2					1						1			1	1	1						7	September
October	1		1		1		1		1						1		2							8	October
November			1	1							1		1			1				1				6	November
December		1		1		2	1			1	4	1									1			12	December
total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4		3	1	1		80	total

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																									Hokkaido
Aomori																									Aomori
lwate																									lwate
Miyagi																	1							1	Miyagi
Akita																									Akita
Yamagata																									Yamagata
Fukushima		1																		1				2	Fukushim
Ibaraki						1	1			1	1			2										6	Ibaraki
Tochigi																									Tochigi
Gunma		5	1	1									1		1									9	Gunma
Saitama									1			1			1	1	1	2						7	Saitama
Chiba	1	1			1												1	1						5	Chiba
Tokyo																									Tokyo
Kanagawa					2	1				1				1										5	Kanagaw
Niigata	1	1					1																	3	Niigata
Toyama	1																				1			2	Toyama
Ishikawa																									Ishikawa
Fukui	1																	1						2	Fukui
Yamanashi																									Yamanas
Nagano																									Nagano
Gifu						1					1													2	Gifu

Shizuoka			1																1	Shizuoka
Aichi				1				1						1					3	Aichi
Mie														3					3	Mie
Shiga																				Shiga
Kyoto							1												1	Kyoto
Osaka		1	1					1	4	1	1						1		1	Osaka
Hyogo	1		2	1									1						5	Hyogo
Nara					1	1													2	Nara
Wakayama			1											1					2	Wakayama
Tottori																				Tottori
Shimane																				Shimane
Okayama																				Okayama
Hiroshima					1														1	Hiroshima
Yamaguchi											1	1			2				4	Yamaguchi
Tokushima																				Tokushima
Kagawa																				Kagawa
Ehime																				Ehime
Kochi																				Kochi
Fukuoka					1												1		2	Fukuoka
Saga																				Saga
Nagasaki																				Nagasaki
Kumamoto															1				1	Kumamoto
Oita																				Oita

Miyazaki																							Miyazaki
Kagoshima																					1	1	Kagoshima
Okinawa																							Okinawa
total	5	9	6	3	3	6	3	1	1	4	6	2	3	4	3	6	6	4	3	1	1	80	total

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

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