

Fatal and non-fatal accidents in metal plating products in Japan in 1999-2021

metal plating products industry Code No.011204

Type of accidents in metal plating 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	35	26	36	27	21	20	24	26	24	22	26	18	15	19	17	19	17	11	19	13	25	16	16	492	fall from height	
falling to same level	35	34	33	34	33	27	30	30	35	35	17	28	21	30	34	24	21	17	23	32	23	26	20	642	falling to same level	
crash	11	15	15	11	13	12	9	7	11	9	5	7	9	5	8	9	5	6	7	8	12	8	14	216	crash	
struck by flying or falling object	42	42	29	31	28	18	35	26	30	24	25	25	28	14	23	29	23	20	17	23	19	16	21	588	struck by flying or falling object	
collapse	16	9	13	12	11	8	9	14	8	10	8	4	12	8	5	10	6	5	6	3	4	8	7	196	collapse	
crashed by	17	12	15	12	13	9	13	9	12	18	6	11	14	10	9	12	9	10	11	8	13	4	11	258	crashed by	
caught in/between	78	52	53	79	48	57	56	52	55	54	43	38	54	46	42	51	32	37	40	42	35	33	30	1,107	caught in/between	
cut	17	13	13	7	8	8	9	6	13	9	4	4	9	8	4	8		11	8	6	7	4	4	180	cut	
injury to the sole of the foot				2		2				1	1		1			2	3		1	1		2		16	injury to the sole of the foot	
drown																										drown
contact to high/low-temperature	17	12	20	20	14	23	12	15	9	4	10	18	12	13	14	11	11	13	11	12	16	10	11	308	contact to high/low-temperature	

engine												1								1					2	engine
power transmission mechanism			2		2		4	5	4	4	3	6	1	6	4	2	1	3	1		1	5	1	55	power transmission mechanism	
circular sawing machine						1						1			1								1	5	circular sawing machine	
band sawing machine																									band sawing machine	
wood planer machine																									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																									chain saw	
other woodworking machines			1																					1	other woodworking machines	
leveling, transporting or loading machine																									leveling, transporting or loading machine	
excavating machine																									excavating machine	
foundation work machine																									foundation work machine	

machine				1					1												1	3	machine		
food manufacturing machine																								food manufacturing machine	
printing machine						1															1		2	printing machine	
industrial robot			1					1					1		3		1					1	8	industrial robot	
other general power machines			11		12		5	12	15	5	13	6	12	9	7	3	3	12	4	14	7	5	4	159	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			9		12		9	6	4	16	8	9	13	9	10	11	9	5	7	7	15	8	11	178	crane
mobile crane			1											1	2									4	mobile crane
derrick crane																									derrick crane
elevator, lift			1		1			1	1	1			1							1	1			9	elevator, lift
cargo lifting appliance																									cargo lifting appliance
gondola																									gondola
lumberyard equipment, logging cableway																									lumberyard equipment, logging cableway

facilities			11		11		12	10	8	8	7	7	4	9	4	6	1	14	13	8	9	5	10	157	facilities
scaffolding						1		1						1	2	1					1	1		8	scaffolding
timbering																									timbering
stairs, landing stage			11		7		8	9	9	6	9	8	5	4	9	5	4	2	6	5	11	13	7	138	stairs, landing stage
opening					1		1		1	1					1	1		1						7	opening
roof, beam, haze, crossbeam, principal rafter			1		1		2			2			1	1	1		1	1	1	1				13	roof, beam, haze, crossbeam, principal rafter
working platform, boot board			5		7		4	7	3	7	6	7	5	3	4	5	4	6	5	4	5	4	2	93	working platform, boot board
passage			13		17		12	14	23	14	6	7	8	17	21	18	11	8	9	15	12	11	10	246	passage
building, establishment			9		1		3	6	8	5	2	2	2	8	1	7	4	1	3	3	1	4	1	71	building, establishment
other temporary buildings, establishments			8		4		1	2	1		4	4	2	2	2	1	3	4	2	3	3		4	50	other temporary buildings, establishments
explosive substance					1																			1	explosive substance
inflammable substance			1		2					2			2	1	1									9	inflammable substance
inflammable gas									1			2			2				1	1				7	inflammable gas
harmful substance			15		27		12	17	17	7	8	10	9	8	13	17	11	17	6	17	16	13	9	249	harmful substance
radiation																									radiation
other hazards, harmful substances			11		11		5	8	9	6	5	8	6	6	10	6	3	4	6	5	5	7	9	130	other hazards, harmful substances

metal material			42		31		40	44	34	40	17	29	30	28	26	31	23	23	34	24	24	23	21	564	metal material
lumber, bamboo			1						1	1	1		1		2			1			2		1	11	lumber, bamboo
stone, sand, substance			1					1												1				3	stone, sand, substance
other materials					2		2	4	4	2	1	1	1	4		1	1	1		3	1	3	1	32	other materials
load			22		16		15	15	14	23	7	8	16	12	6	12	5	7	7	14	6	3	11	219	load
machine/equipment as load			2				1	1		1	2		2	1				1	1		1			13	machine/equipment as load
natural ground, rock															1									1	natural ground, rock
standing tree																									standing tree
water			1					1					2				1							5	water
abnormal environment																		1					1	2	abnormal environment
high/cold temperature environment					1		1	2	1			6	3	1	1		2	3		3	3	1	2	30	high/cold temperature environment
other environments										1		1	2	2	2	3	1		1		2		1	16	other environments
other causal agent			1		2		4	2	1	1	1	4		1		1	3			3	2	1	2	29	other causal agent
no causal agent			6		6		7	11	2	5	2	3	3	7	8	6	3	4	5	4	5	5	9	101	no causal agent
unclassifiable			1		1		1		1			1		1				1						7	unclassifiable
total			272		241		231	240	247	232	170	183	201	188	187	217	149	162	170	179	194	162	168	3,793	total

Workers age of fatal and non-fatal accidents in metal plating 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	2	6	7	11	6	9	6	10	5	6	4	5	3	2	8	3	7	1	4	6	2	2	3	118	19 years old or less
20-29	56	41	56	61	51	43	33	44	44	42	24	24	34	41	42	48	29	31	30	33	37	34	26	904	20-29
30-39	51	51	49	56	48	57	58	74	60	61	41	48	46	54	34	57	36	41	36	32	38	32	37	1,097	30-39
40-49	62	48	46	38	41	43	46	40	45	45	34	39	44	38	46	60	33	35	52	45	43	35	38	996	40-49
50-59	97	80	79	76	69	59	57	49	48	43	39	37	42	35	34	27	23	38	27	49	45	39	39	1,131	50-59
60 years old or more	37	27	35	35	26	22	31	23	45	35	28	30	32	18	23	22	21	16	21	14	29	20	25	615	60 years old or more
total	305	253	272	277	241	233	231	240	247	232	170	183	201	188	187	217	149	162	170	179	194	162	168	4,861	total

Workers' number of workplace of fatal and non-fatal accidents in metal plating 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	59	50	43	47	43	52	44	42	42	43	28	28	33	25	21	19	21	23	17	15	19	18	11	743	9 workers or less
10-29	104	79	106	111	82	82	85	84	87	66	62	54	76	67	63	73	50	42	50	49	56	50	49	1,627	10-29
30-49	62	56	52	58	59	44	36	45	45	55	38	48	33	30	44	49	28	43	46	55	49	39	48	1,062	30-49
50-99	46	44	51	38	36	42	46	43	45	47	29	42	37	42	37	47	33	29	32	35	37	29	34	901	50-99
100-299	33	24	18	23	19	11	20	26	28	20	12	10	22	21	19	28	16	24	24	22	31	23	24	498	100-299
300 workers or more	1		2		2	2				1	1	1		3	3	1	1	1	1	3	2	3	2	30	300 workers or more
total	305	253	272	277	241	233	231	240	247	232	170	183	201	188	187	217	149	162	170	179	194	162	168	4,861	total

Month of fatal and non-fatal accidents in metal plating 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	22	22	12	20	26	20	15	31	29	20	15	15	12	14	18	15	14	8	11	11	8	15	14	387	January
February	25	10	32	19	21	18	20	11	23	24	7	6	19	25	11	18	11	9	9	16	11	10	16	371	February
March	29	18	22	20	18	25	21	19	25	25	19	14	29	18	16	11	10	18	11	14	19	15	16	432	March
April	24	22	26	33	19	17	15	10	17	17	14	19	18	16	12	18	12	18	18	16	12	12	8	393	April
May	21	14	24	18	21	16	21	15	20	14	11	9	11	10	11	26	9	12	10	12	22	11	15	353	May
June	31	32	14	24	24	22	19	21	25	17	14	12	19	15	9	21	9	16	11	15	16	13	14	413	June
July	27	27	22	29	20	13	21	29	20	16	14	20	13	15	18	20	13	13	23	21	24	19	11	448	July
August	17	19	31	19	21	19	31	20	14	24	12	15	21	9	16	25	10	17	15	16	18	12	13	414	August
September	42	21	19	25	18	26	10	25	15	18	11	21	11	16	22	15	12	14	16	10	19	13	21	420	September
October	27	23	25	26	17	17	16	18	24	18	16	20	10	16	24	19	19	13	13	15	20	5	13	414	October
November	24	27	24	25	12	25	23	25	19	14	17	14	24	20	20	15	17	11	18	21	11	17	9	432	November
December	16	18	21	19	24	15	19	16	16	25	20	18	14	14	10	14	13	13	15	12	14	20	18	384	December
total	305	253	272	277	241	233	231	240	247	232	170	183	201	188	187	217	149	162	170	179	194	162	168	4,861	total

Prefecture of fatal and non-fatal accidents in metal plating 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	6	5	9		11			1	3	2	3	4	3	3	5	2	2	1	2	1	1	2	3	69	Hokkaido
Aomori	1									3							1				3			8	Aomori
Iwate	3		2		1		2	2		1	2	1		2	2	1	1			1	4	1	1	27	Iwate

Miyagi					1					1			2	1		1					2	3		11	Miyagi
Akita	1		1				2	3	4	2	3		4	2	2	3	3		3	3	2	2	5	45	Akita
Yamagata	1	2	4		1		3	2	3	6	1	4	3	6	4	4	1	3	5	1	4	5	1	64	Yamagata
Fukushima	2	1	4		5		1	1	5	5	1	4	2	2	1	1		1	2	4		2	1	45	Fukushima
Ibaraki	2	5			2		1	1	5	1		2	4	1	3	4	6		4	2	3	5	4	55	Ibaraki
Tochigi	4	4	4		1		5	1	3	3	1	1	2	3	1	2		3			2	2	1	43	Tochigi
Gunma	8	3	11		8		6	12	10	14	8	16	7	9	13	10	3	7	4	14	9	7	5	184	Gunma
Saitama	12	15	12		14		11	7	21	10	10	16	15	13	12	13	17	12	15	15	11	9	6	266	Saitama
Chiba	11	4	8		9		8	8	6	7	6	6	9	11	8	8	11	7	5	5	7	8	3	155	Chiba
Tokyo	23	31	17		14		14	18	22	16	12	9	13	17	11	7	12	5	6	10	7	9	12	285	Tokyo
Kanagawa	12	9	11		5		14	13	17	3	9	10	8	14	6	6	3	8	7	4	7	4	6	176	Kanagawa
Niigata	14	7	8		11		6	13	5	5	5	4	12	5	11	3	7	6	7	4	13	5	2	153	Niigata
Toyama	3	5	6		1		2	2	2			1	2	4	2	4	1	2		2		1	1	41	Toyama
Ishikawa	2	5	3		5		1	4	7	4	4	2		2	5	5	4	4	4	1	1	4	2	69	Ishikawa
Fukui	2		1					1	2				2		2	1		1	1	3	1		2	19	Fukui
Yamanashi					1			2		2					1			2	1		2	1		12	Yamanashi
Nagano	11	3	5		4		8	7	1	2	1	3	5	7	4	8	5	5	8	3	6	6	5	107	Nagano
Gifu	6	4	9		9		1	3	9		5	1	1	2	2	3	3	2	4	2		1	5	72	Gifu
Shizuoka	11	5	11		8		8	12	9	9	1	4	16	3	9	13	5	5	6	6	1	10	4	156	Shizuoka
Aichi	39	36	41		32		28	35	40	29	25	26	20	32	24	37	15	30	25	25	35	23	33	630	Aichi
Mie	3	4	5		1		2	3		4	2	5	1	3	2	3	2	1		2	2	2	2	49	Mie
Shiga		2			4		2	2	1	2	1	1	1	3	1	3	1	2	1	1	1		1	30	Shiga
Kyoto	5	6	9		3		3	1	2	1	4	4	2	1	5	2	1	5	6	3	3		1	67	Kyoto

Osaka	78	60	50		53		59	45	44	51	44	22	32	21	23	32	23	25	28	28	38	25	27	808	Osaka
Hyogo	16	12	9		7		8	4	2	11	4	9	5	5	3	10	7	2	6	10	6	2	7	145	Hyogo
Nara												1							1	1	1	1		5	Nara
Wakayama	1							1	1	1	1		2					1	1		1			10	Wakayama
Tottori			1					1						1				1				1	1	6	Tottori
Shimane																					1		1	2	Shimane
Okayama	1				2		2		2	3	1		1			2					1	1		16	Okayama
Hiroshima	5	6	9		8		8	11	5	12	4	8	5	5	4	6	4	7	6	5	3	8	5	134	Hiroshima
Yamaguchi	7	4					2	1	1	2		1	1	1		1	1	1	1	1	2	2	3	32	Yamaguchi
Tokushima	1				1		1	1				1	2	2	1	1							1	12	Tokushima
Kagawa		2	1					1	3		2	3	2	1	1	2	1	1		5	3		1	29	Kagawa
Ehime	3	3	4		7		5	4		4	2	3	5	1	4	2	2	3	2	5	1	3	1	64	Ehime
Kochi	2	1	1		1			1					1											7	Kochi
Fukuoka	3	5	4		6		10	7	4	6	4	3	4	2	8	8	3	4	3	5	5	3	5	102	Fukuoka
Saga		1											1	1				1						4	Saga
Nagasaki	2	1	3				2	1	2	1	1	1		1		4	1		1		1			22	Nagasaki
Kumamoto	2	1	4				4	3	5	6	2	3	5	2	5		1	3	3	4	3	3	6	65	Kumamoto
Oita	2	1	1				1	1		1	1	2	1	1	1	1					1	1	1	17	Oita
Miyazaki			3		3		1	2	1	1						1	1		1	3			1	18	Miyazaki
Kagoshima			1		1			2		1						2		2	1				2	12	Kagoshima
Okinawa					1								1											3	Okinawa
total	305	253	272		241		231	240	247	232	170	183	201	188	187	217	149	162	170	179	194	162	168	4,351	total

total	5	3	4	4	2	1	1	2	3	1	2	4	1	2	1	3	4	2	1	46	total
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Causal agents (small) of fatal accidents in metal plating 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 mechanism																		1						1	power transmission mechanism
circular sawing machine																									circular sawing machine
band sawing machine																									band sawing machine
wood planer machine																									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																									chain saw
other woodworking machines																									other woodworking machines

hand tool																								hand tool		
ladder			1	1																				2	ladder	
slinging tool																									slinging tool	
other tools																									other tools	
other equipment, facilities														1										1	2	other equipment, facilities
scaffolding																										scaffolding
timbering																										timbering
stairs, landing stage																										stairs, landing stage
opening																										opening
roof, beam, haze, crossbeam, principal rafter													1												1	roof, beam, haze, crossbeam, principal rafter
working platform, boot board																										working platform, boot board
passage																										passage
building, establishment	1		1											1											3	building, establishment
other temporary buildings, establishments																									1	other temporary buildings, establishments
explosive substance																										explosive substance
inflammable substance														1											1	inflammable substance

