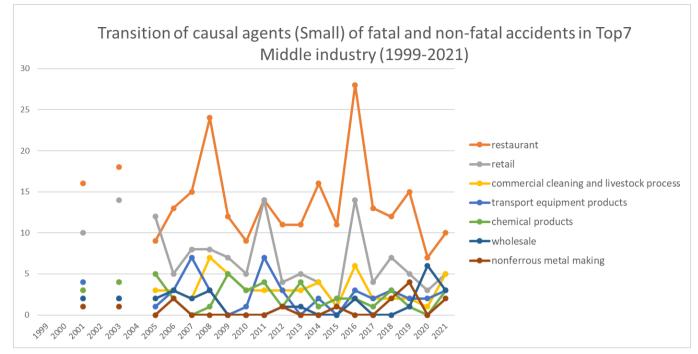
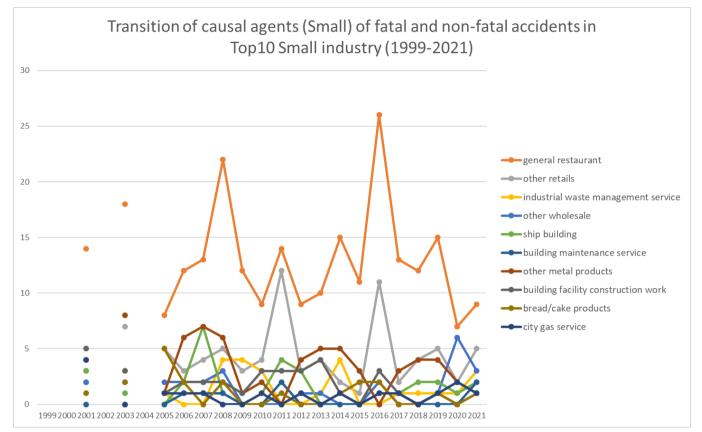


Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Large industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Middle Industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Small Industry (1999-2021)

## Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Large industry (1999-2021)

code	Large industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Large industry
01	manufacturing			34		30		26	27	34	31	12	18	27	23	18	29	14	14	20	23	19	14	12	425	manufacturing
14	hotel/restaurant/amusement			23		22		12	17	20	29	13	10	16	14	14	20	13	29	16	14	17	8	10	317	hotel/restaurant/amusement
	service			25		~~		12	17	20	29					14	20		2.9				0		517	service
08	commerce			14		16		15	12	11	11	8	5	18	7	8	7	1	16	4	7	6	9	8	183	commerce
15	commercial cleaning and			2		Δ		3	3	2	7	5	R	2	2	2	A	1	6	2	2	2	1	5	62	commercial cleaning and
	livestock process			5		т 		5	5	2	ľ		5		5	5	<b>–</b>			Ľ		2			02	livestock process
03	construction			31		23		23	23	17	20	15	23	20	31	11	14	12	11	13	13	11	9	1	321	construction
05	cargo handling service					1		1						1										1	4	cargo handling service

04	transportation service		3	3	3	5	2	2	3	1	6	3	2	1	2	1	3	3	3	3		49	transportation service
13	health and hygiene service		2	2	2	4	7	4	1	2	1		2	2	1	2		1	1	4		38	health and hygiene service
17	others		5	3	2	1		1	1	1	3	2	1	2	1	1	1	4		4		33	others
12	education/research service		1	1		1									4			1				8	education/research service
09	financial								1				1					2		2		6	financial
	business/advertisement												<u> </u>					2		2			business/advertisement
07	livestock/fishery			3	1								1									5	livestock/fishery
02	mining											2										2	mining
06	agriculture							1												1		2	agriculture
16	public office						1															1	public office
10	movie/play service																						movie/play service
11	telecommunication service																						telecommunication service
	total		116	108	88	93	94	106	59	63	95	85	61	79	49	80	59	70	59	55	37	1,456	total

## Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Middle industry (1999-2021)

code	Middle industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Middle industry
1402	restaurant			16		18		9	13	15	24	12	9	14	11	11	16	11	28	13	12	15	7	10	264	restaurant
0802	retail			10		14		12	5	8	8	7	5	14	4	5	4	1	14	4	7	5	3	5	135	retail
1501	commercial cleaning and livestock process			3		4		3	3	2	7	5	3	3	3	3	4	1	6	2	2	2	1	5	62	commercial cleaning and livestock process
0115	transport equipment products			4		2		1	3	7	3		1	7	3		2		3	2	3	2	2	3	48	transport equipment products
0108	chemical products			3		4		5	2		1	5	3	4	1	4	1	2	2	1	3	1		3	45	chemical products
0801	wholesale			2		2		2	3	2	3				1	1			2			1	6	3	28	wholesale
0111	nonferrous metal making			1		1			2						1			1			2	4		2	14	nonferrous metal making

0302 construction work	12	8	7	6	6	6	8	14	11	8	7	6	8	3	5	3	5	2	1	126	construction work
0112 metal products	4	8	1	6	7	7	1	3	3	4	5	7	3		3	5	5	2	1	75	metal products
0101 food products	6	4	8	6	4	8	1	2	4	6	2	1	3	4	3		3	3	1	69	food products
0116 electric/gas/water service	4		1	2	5			1	3	1		2		1	1		1	2	1	25	electric/gas/water service
)106 pulp/paper processing products									1					1				1	1	4	pulp/paper processing products
0501 land cargo handling service		1	1																1	3	land cargo handling service
0303 other construction works	9	6	7	6	6	6	6	6	7	9	2	5	4	6	4	7	2	3		101	other construction works
)301 civil engineering work	10	9	9	11	5	8	1	3	2	14	2	3		2	4	3	4	4		94	civil engineering work
)117 other manufacturing	10	3	6	3	2	4	3	8	3	6	1	5	2	2	5	5	2	1		71	other manufacturing
0403 road cargo transportation service	1	3	3	3	1	2	1	1	5	3	1		2	1	3	3	3	3		39	road cargo transportation service
1401 hotel	5	3	2	4	5	4	1		2	2	2		1			1	2			34	hotel
0110 steel making	2	1	1		5	3	1		1		2	9	2		3	1	1	1		33	steel making
1702 others	5	3	2	1		1	1	1	3	2	1	2	1	1	1	4		4		33	others
0113 machine products		5	2	3	3	1			1	1	1	1	1	1	1	4		1		26	machine products
1302 social welfare facility	1	1	1	2	1	3	1	2	1		1	1	1	1		1	1	2		21	social welfare facility
0804 other commerce	2		1	3	1		1		4	2	2	3								19	other commerce
1403 other amusement service	2	1	1			1		1		1	1	4	1	1	3	1		1		19	other amusement service
0109 sand and stone products		1	1			3					3	1						1		10	sand and stone products
1301 medical treatment service		1		2	1	1					1	1		1				1		9	medical treatment service

0402	road passenger transport service		2			1	1		2	1			1					8	road passenger
																			transport service
1201	education/research service		1	1		1								4		1		8	education/research service
1303	other health and hygiene service		1		1		5										1	8	other health and hygiene service
0702	fishery			3	1													4	fishery
0901	financial business								1			1					2	4	financial business
0114	electrical equipment products								1						1			2	electrical equipment products
0202	quarrying										2							2	quarrying
0401	railroad/water transportation/airline service					1						1						2	railroad/water transportation/airline service
0601	agriculture							1									1	2	agriculture
0902	advertisement and mediator															2		2	advertisement and mediator
0104	wood products							1										1	wood products
0105	furniture			1														1	furniture
0107	printing/bookbinding						1											1	printing/bookbinding
0502	harbor transportation service									1								1	harbor transportation service
0701	livestock											1						1	livestock
0803	haircut/beauty salon					1												1	haircut/beauty salon
1601	public office						1											1	public office
0102	textile products																		textile products
0103	fiber products																		fiber products

0201	coal mining																						coal mining
0203	other mining																						other mining
0404	other transportation service																						other transportation
																							service
0602	forestry																						forestry
1001	movie/play service																						movie/play service
1101	telecommunication service																						telecommunication
																							service
1701	dispatch service																						dispatch service
	total		116	108	88	93	94	106	59	63	95	85	61	79	49	80	59	70	59	55	37	1,456	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Small industry (1999-2021)

code	Small industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	5 2016	2017	2018	2019	2020	2021	total	Small industry
140201	general restaurant			14		18		8	12	13	22	12	9	14	9	10	15	11	26	13	12	15	7	9	249	general restaurant
080209	other retails			3		7		5	3	4	5	3	4	12	3	4	2	1	11	2	4	5	2	5	85	other retails
150102	industrial waste management service			2		3		1			4	4	3			1	4			1	1	1	1	3	29	industrial waste management service
080109	other wholesale			2		2		2	2	2	3				1	1			2			1	6	3	27	other wholesale
011501	ship building			3		1			2	7	1		1	4	3		1		1	1	2	2	1	2	32	ship building
150101	building maintenance service								1	1	1			2					1	1				2	9	building maintenance service
011209	other metal products			4		8		1	6	7	6	1	2		4	5	5	3		3	4	4	2	1	66	other metal products
030203	building facility construction work			5		3		1	2	2	2	1	3	3	3	4	1		3	1		1		1	36	building facility construction work
010104	bread/cake products			1		2		5	2		2			1			1	2	2			1		1	20	bread/cake products
011602	city gas service			4				1	1	1			1		1		1		1	1		1	2	1	16	city gas service
010801	non organic or organic			3				2	1			4			1	1			2					1	15	non organic or organic

	chemical products																						chemical products
140209	other restaurants		2		1	1	2	2				2	1	1		2					1	15	other restaurants
011509	other transport equipment products			1	1			1								1	1			1	1	7	other transport equipment products
011102	nonferrous metals casting products					1									1			1	1		1	5	nonferrous metals casting products
010602	paper processing products										1					1				1	1	4	paper processing products
011109	other nonferrous metal products		1																1		1	3	other nonferrous metal products
050101	land cargo handling service			1	1																1	3	land cargo handling service
010802	chemical fiber																				1	1	chemical fiber
010808	painting products																				1	1	painting products
030309	other construction works		5	6	6	5	4	5	3	2	7	5		3	3	1	3	2		1		61	other construction works
030209	other building construction work		2	1	3	3	2	1	7	5	4	4	1	4	4		2	1	1	1		46	other building construction work
030199	other civil engineering work		5	6	5	5	3	1		2	1	3	1	3		2	1	2	2	3		45	other civil engineering work
010109	other foods	4	4	2	3	3	4	6	1	2	2	5	2			2	3		2	3		44	other foods
011701	auto mobile servicing		6	2	4	2	1	3	1	5	1	5		3	1	1	3	3	1			42	auto mobile servicing
030201	steel frame/reinforced concrete house construction work	1	5	2	2		2	3		6	2	1	2	1	3		1	2	3	1		36	steel frame/reinforced concrete house construction work
030302	machinery/apparatus setting work		4		1		2	1	3	4		4	2	2	1	3	1	5	2	1		36	machinery/apparatus setting work
140101	hotel		5	3	2	4	5	4	1		2	2	2		1			1	2			34	hotel
040301	general truck transportation service		1	2	2	3	1	2	1		5		1		2	1	3	2	2	2		30	general truck transportation service
170209	others		4	3	2	1			1	1	3	2	1	1	1	1	1	4		4		30	others

080204	fuel retail	2	2	4		5		2	1	1		1	1		2		1	1	3		1	25	fuel retail
011001	steel/iron/rolling products	2	2	1				5	3			1		1	7			2	1			23	steel/iron/rolling products
130201	social welfare facility	1	I	1		1	2	1	3	1	2	1		1	1	1	1		1	1	2	21	social welfare facility
011301	machine products			2		2	3	3	1				1	1		1	1	1	3		1	20	machine products
030106	road construction work	3	3	3	,	4	2	1	1				4							1		19	road construction work
011702	machine repair	3	3			1	1			2	2		1	1	1		1		2	1	1	17	machine repair
080409	other commerce	2	2				2	1		1		4	1	2	3							16	other commerce
030110	water supply/sewage construction work	1	I				4	1	3			1	2					2		1		15	water supply/sewage construction work
080201	all kinds of retail	5	5	2		1		1	2	1		1		1								14	all kinds of retail
150103	other waste disposal service	1	I	1		1	1	1	1	1		1	2			1	2			1		14	other waste disposal service
140309	other amusement service	2	2	1					1		1		1		3			2	1		1	13	other amusement service
010805	plastics products			2						1				2	1	1		1	2	1		11	plastics products
011709	other manufacturing	1	I	1		1			1		1	2			1	1		2				11	other manufacturing
080202	auto mobile retail			1		1	2	1		2	1						2	1				11	auto mobile retail
150109	other cleaning and livestock process service					1	1		1				1	2			3		1			10	other cleaning and livestock process service
011502	auto mobile products	1	1				1		1			3			1		1		1			9	auto mobile products
010803	pharmaceuticals			2		2					1	2		1								8	pharmaceuticals
030202	wooden house construction work			2		1	1					2				1		1				8	wooden house construction work
120109	other education/research service	1	I	1			1									4			1			8	other education/research service
130301	bathhouse	1				1		5													1	8	bathhouse
011204	metal plating products								1			2			2				1	1		7	metal plating products
030102	tunnel construction work								2				5									7	tunnel construction work
011002	casting products					1				1					1	1		1			1	6	casting products

011101	nonferrous metals/rolling products			1		1						1						1	2		6	nonferrous metals/rolling products
130101	hospital			1		2	1	1												1	6	hospital
010899	other chemical products									2	1				1			1			5	other chemical products
040202	bus service					1	1		2		1										5	bus service
040302	specific truck transportation service				1					1		2							1		5	specific truck transportation service
010101	meat/dairy products		1			1					1				1						4	meat/dairy products
010909	other sand and stone products							1					3								4	other sand and stone products
011009	other steel products												1	1	1				1		4	other steel products
011305	other precision machine products			2										1				1			4	other precision machine products
011601	electric utility service						1				3										4	electric utility service
011603	city water service					1	3														4	city water service
030301	electricity/telecommunication work					1										2				1	4	electricity/telecommunication work
040309	other land cargo transportation service			1								1						1		1	4	other land cargo transportation service
070201	fishery			3	1																4	fishery
140301	golf course				1								1	1			1				4	golf course
010804	petroleum/coal products				1	1					1										3	petroleum/coal products
010903	pottery products			1				2													3	pottery products
030111	port/seaside construction work							1		1			1								3	port/seaside construction work
040201	taxi service		2											1							3	taxi service
080401	warehousing				1	1						1									3	warehousing

090101	banking/trust business											1						2	3	banking/trust business
170201	security service		1				1						1						3	security service
010901	cement products												1					1	2	cement products
011302	measuring instruments			1						1									2	measuring instruments
020202	gravel digging										2								2	gravel digging
030104	railway construction work							1										1	2	railway construction work
030109	land consolidation civil engineering work		1														1		2	land consolidation civil engineering work
060101	agriculture						1											1	2	agriculture
090209	other advertisement and mediator																2		2	other advertisement and mediator
130109	other medical treatment service												1		1				2	other medical treatment service
140302	park and amusement park													1	1				2	park and amusement park
010102	fishery products										1								1	fishery products
010401	lumbering						1												1	lumbering
010503	fittings			1															1	fittings
010701	printing service					1													1	printing service
010809	chemical fertilizer products						1												1	chemical fertilizer products
010904	fire resisting products				1														1	fire resisting products
011201	western tableware/cutting tool products								1										1	western tableware/cutting tool products
011202	screw products									1									1	screw products
011402	electrical appliance							1											1	electrical appliance
011409	other electrical equipment															1			1	other electrical equipment
011609	other electric/gas/water service												1						1	other electric/gas/water service

011703	cleaning					1							1	cleaning
30107	river civil engineering work										1		1	river civil engineering work
040101	railroad service								1				1	railroad service
40102	water transportation service				1								1	water transportation service
050209	other harbor transportation service							1					1	other harbor transportation service
70101	livestock								1				1	livestock
80102	furniture/fittings wholesale				1								1	furniture/fittings wholesale
80301	haircut				1								1	haircut
90109	other financial business						1						1	other financial business
30102	general clinic								1				1	general clinic
60101	public office					1							1	public office
10103	agricultural food products													agricultural food products
10105	alcoholic drinks													alcoholic drinks
10106	soft drinks													soft drinks
10201	silk-reeling													silk-reeling
10202	cotton-spinning													cotton-spinning
10203	weaving													weaving
10204	dyeing													dyeing
10209	other textile products													other textile products
10301	over/under wear													over/under wear
10309	other fiber products													other fiber products
010402	plywood													plywood
10409	other lumber and wood products													other lumber and wood products
10501	wood furniture													wood furniture

010502	metal furniture									metal furniture
010509	other furniture									other furniture
010601	pulp/paper									pulp/paper
010609	other pulp/paper processing									other pulp/paper processing
	products									products
010702	bookbinding									bookbinding
010709	other printing and									other printing and
	bookbinding									bookbinding
010806	rubber products									rubber products
010807	leather products									leather products
010902	glass products									glass products
010905	other ceramic products									other ceramic products
011203	metal press products									metal press products
011303	optical instruments									optical instruments
011304	watch products									watch products
011401	heavy electrical equipment									heavy electrical equipment
	electronics equipment and									electronics equipment and
011403	telecommunications									telecommunications
	apparatus									apparatus
011503	railway vehicle products									railway vehicle products
011704	tobacco products									tobacco products
020101	general coal mining									general coal mining
020109	other coal mining									other coal mining
020201	quarrying									quarrying
020209	other quarrying									other quarrying
020301	metal mining									metal mining
020302	petroleum mining									petroleum mining

020309	other mining										other mining
030101	hydroelectric plant construction work										hydroelectric plant construction work
030103	subway construction work										subway construction work
030105	bridge construction work										bridge construction work
030108	sand collapse prevention civil engineering work										sand collapse prevention civil engineering work
040103	airline service										airline service
040209	other passenger transport service										other passenger transport service
040303	cargo/ light automobile transportation service										cargo/ light automobile transportation service
040409	other transportation service										other transportation service
050201	general harbor transportation service										general harbor transportation service
050202	port cargo handling service										port cargo handling service
060201	lumbering										lumbering
060209	other forestry										other forestry
070209	other fishery										other fishery
080101	all kinds of wholesale										all kinds of wholesale
080203	furniture/fittings retail										furniture/fittings retail
080205	newspaper retail										newspaper retail
080302	beauty salon										beauty salon
090102	stock/commodity trade business										stock/commodity trade business
090103	insurance business										insurance business
090201	traveling service										traveling service

100101	movie production and delivery service																						movie production and delivery service
100102	movie theatre																						movie theatre
100109	other movie/play service																						other movie/play service
110101	telecommunication service																						telecommunication service
120101	auto mobile practical training																						auto mobile practical training
120102	software service																						software service
130309	other health and hygiene																						other health and hygiene
	service																						service
150104	cremation service																						cremation service
150105	livestock process service																						livestock process service
170101	dispatch service																						dispatch service
170202	information processing																						information processing
	service																						service
	total		116	108	88	93	94	106	59	63	95	85	61	79	49	80	59	70	59	55	37	1,456	total

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

https://www.jisha.or.jp/english/statistics/202212\_03.html