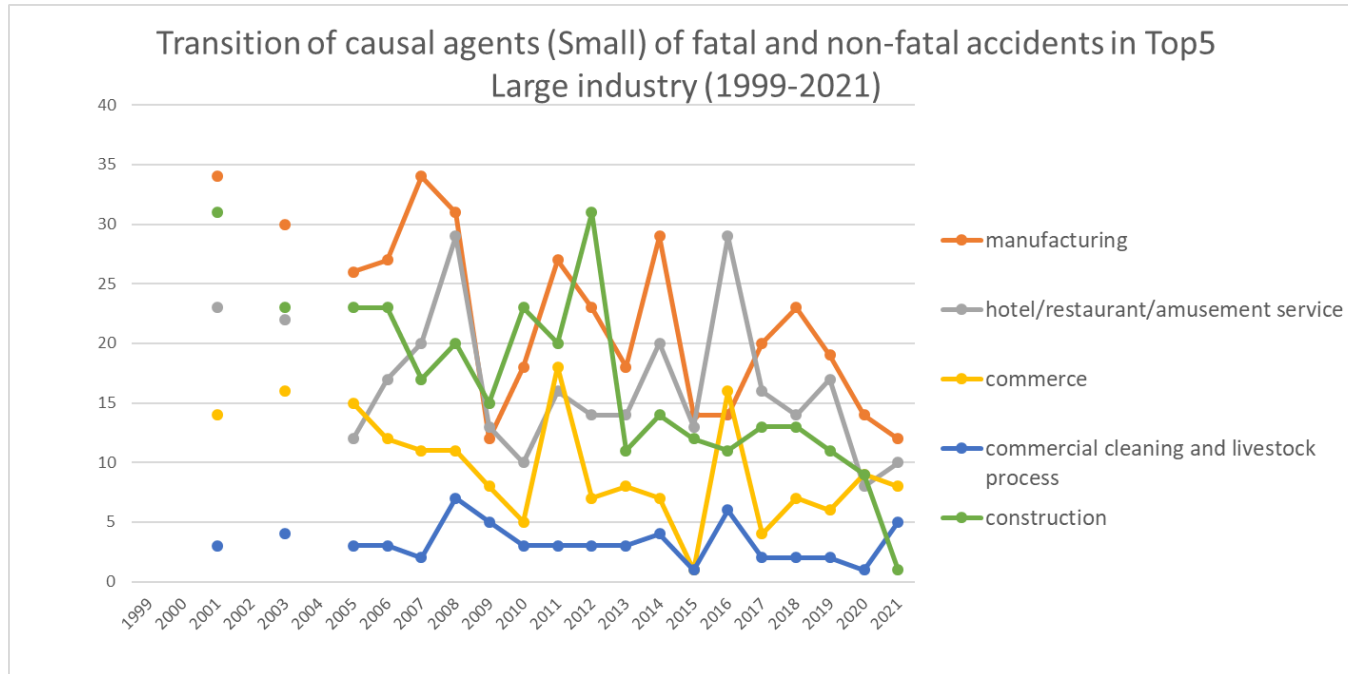
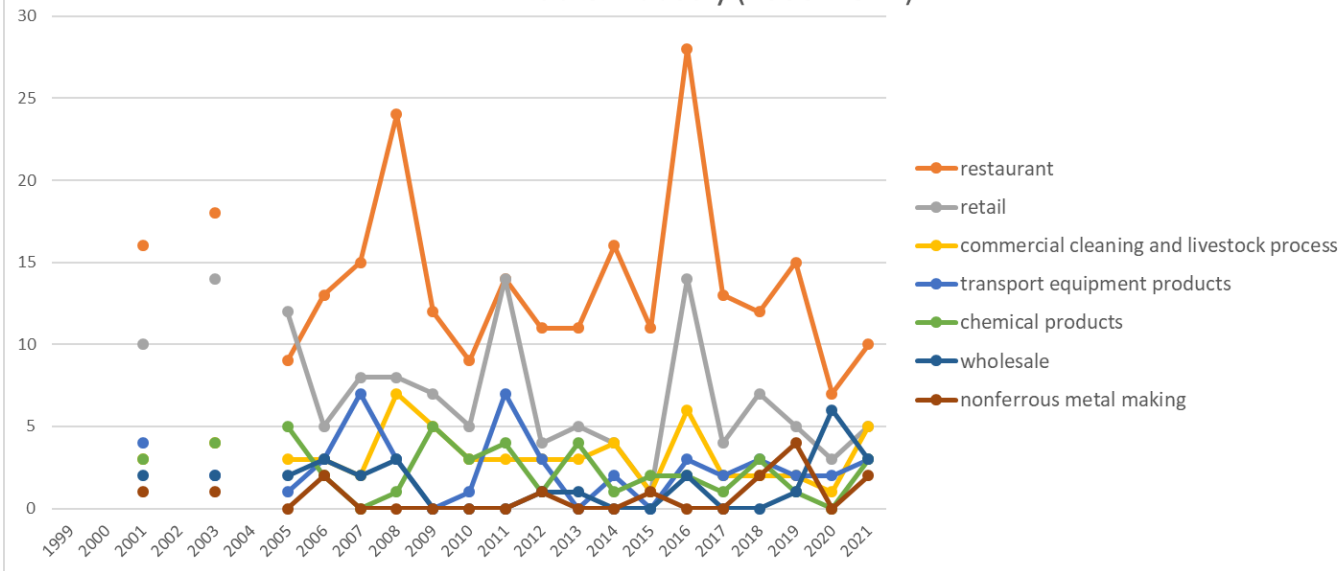


Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas (1999-2021)



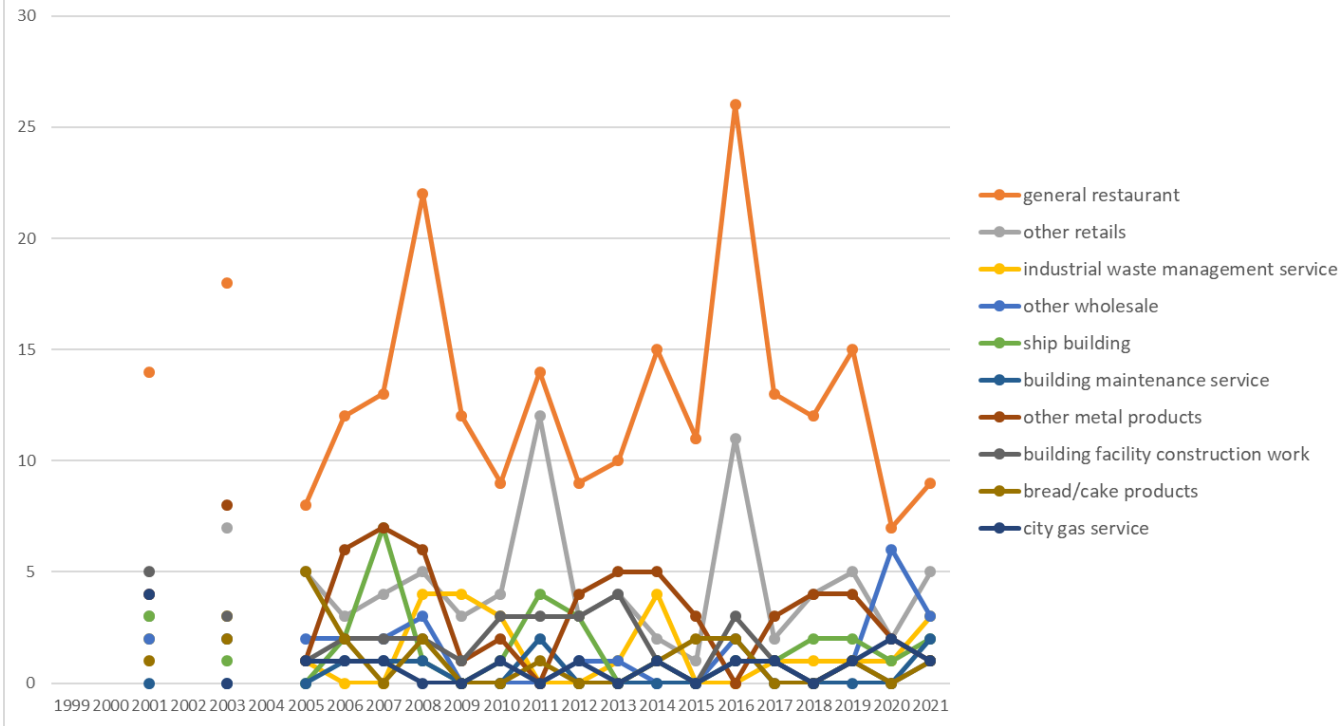
Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 513 inflammable gas in Large industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents in Top7 Middle 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 in Top10 Small 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 service			23		22		12	17	20	29	13	10	16	14	14	20	13	29	16	14	17	8	10	317	hotel/restaurant/amusement 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 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
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 business/advertisement									1				1				2		2			6	financial 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
0106	pulp/paper processing products													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	7	9	2	5	4	6	4	7	2	3			101	other construction works
0301	civil engineering work			10		9		9	11	5	8	1	3	2	14	2	3		2	4	3	4	4		94	civil engineering work
0117	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	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

	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		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			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		4		5		2	1	1		1	1		2		1	1	3		1			25	fuel retail
011001	steel/iron/rolling products			2		1				5	3			1		1	7			2	1					23	steel/iron/rolling products
130201	social welfare facility			1		1		1	2	1	3	1	2	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		4	2	1	1				4							1				19	road construction work
011702	machine repair			3				1	1				2	2		1	1	1		1		2	1	1		17	machine repair
080409	other commerce			2					2	1		1		4	1	2	3									16	other commerce
030110	water supply/sewage construction work			1					4	1	3				1	2					2		1			15	water supply/sewage construction work
080201	all kinds of retail			5		2		1		1	2	1		1		1										14	all kinds of retail
150103	other waste disposal service			1		1		1	1	1	1	1		1	2			1	2			1				14	other waste disposal service
140309	other amusement service			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		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			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		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

090101	banking/trust business														1							2		3	banking/trust business	
170201	security service			1											1										3	security service
010901	cement products														1							1			2	cement products
011302	measuring instruments					1																			2	measuring instruments
020202	gravel digging																								2	gravel digging
030104	railway construction work														1										2	railway construction work
030109	land consolidation civil engineering work			1																					2	land consolidation civil engineering work
060101	agriculture														1										2	agriculture
090209	other advertisement and mediator																								2	other advertisement and mediator
130109	other medical treatment service																								2	other medical treatment service
140302	park and amusement park																								2	park and amusement park
010102	fishery products																								1	fishery products
010401	lumbering														1										1	lumbering
010503	fittings					1																			1	fittings
010701	printing service																								1	printing service
010809	chemical fertilizer products																								1	chemical fertilizer products
010904	fire resisting products																								1	fire resisting products
011201	western tableware/cutting tool products																								1	western tableware/cutting tool products
011202	screw products																								1	screw products
011402	electrical appliance																								1	electrical appliance
011409	other electrical equipment																								1	other electrical equipment
011609	other electric/gas/water service																								1	other electric/gas/water 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 service																								other health and hygiene service	
150104	cremation service																								cremation service	
150105	livestock process service																								livestock process service	
170101	dispatch service																								dispatch service	
170202	information processing service																								information processing 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 : <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm> (MHLW, Japan)

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