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Data Summary

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Environmental Data

Greenhouse Gas Emissions (Scope 1 and 2) (non-consolidated)

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020 ^{*2}	FY 2021 ^{*2}
Energy-derived CO ₂ emissions	Non- consolidated	t-CO ₂ e	71,336	69,731	69,946	71,732	63,205
Non-energy derived CO ₂ emissions	Non- consolidated	t-CO ₂ e	2,017	2,202	2,409	2,301	2,617
N ₂ O	Non- consolidated	t-CO ₂ e	147	182	133	122	112
CH ₄	Non- consolidated	t-CO ₂ e	31	29	24	26	29
HFCs	Non- consolidated	t-CO ₂ e	1	5	0	12	3
Other fluorocarbons	Non- consolidated	t-CO ₂ e	181	756	405	34	336
PFCs	Non- consolidated	t-CO ₂ e	0	0	0	0	0
SF ₆	Non- consolidated	t-CO ₂ e	0	0	0	0	0
NF ₃	Non- consolidated	t-CO ₂ e	0	0	0	0	0
Total ^{*1}	Non- consolidated	t-CO ₂ e	73,713	72,905	72,918	74,227	66,302

^{*1.} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Greenhouse Gas Emissions (Scope 1 and 2) (consolidated)

Indicator	Scope	Unit	FY 2017 ^{*3}	FY 2018 ^{*3}	FY 2019	FY 2020	FY 2021
Energy-derived CO ₂ emissions	Consolidated	t-CO ₂ e	-	-	127,660	114,891	108,500
Non-energy derived CO ₂ emissions	Consolidated	t-CO ₂ e	-	-	2,421	2,339	2,658
N ₂ O	Consolidated	t-CO ₂ e	-	-	133	122	112
CH ₄	Consolidated	t-CO ₂ e	-	-	24	26	29
HFCs	Consolidated	t-CO ₂ e	-	-	0	16	7
Other fluorocarbons	Consolidated	t-CO ₂ e	-	-	611	1,011	794
PFCs	Consolidated	t-CO ₂ e	-	-	0	0	0
SF ₆	Consolidated	t-CO ₂ e	-	-	0	0	0
NF ₃	Consolidated	t-CO ₂ e	-	-	0	0	0
Total*1	Consolidated	t-CO ₂ e	-	-	130,850	118,405	112,100
Scope1	Consolidated	t-CO ₂ e	-	-	36,170	35,329	37,390
Scope2 (market based)	Consolidated	t-CO ₂ e	-	-	94,680	83,077	74,710
Emissions per sales unit*2	Consolidated		-	-	0.76	0.68	0.65

^{*1.} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Scope3

Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	
Purchased goods and services	Consolidated	t-CO ₂ e	-	-	243,600	237,300	294,500	
Capital goods	Consolidated	t-CO ₂ e	-	-	42,700	42,900	26,800	
Fuel- and energy-related activities not included in scope 1 or scope 2	Consolidated	t-CO ₂ e	-	-	22,400	21,200	22,300	
Transportation and distribution (upstream)	Consolidated	t-CO ₂ e	-	-	19,000	17,600	22,300	
Waste generated in operations	Consolidated	t-CO ₂ e	-	-	26,500	28,800	31,800	
Business travel	Consolidated	t-CO ₂ e	-	-	800	800	800	
Employee commuting	Consolidated	t-CO ₂ e	-	-	2,500	2,400	2,400	
Leased assets (upstream)	Consolidated	t-CO ₂ e	Included in scope 1 or scope 2					
Transportation and distribution (downstream)	Consolidated	t-CO ₂ e	-	-	1,000	1,000	1,600	
Processing of sold products	Consolidated	t-CO ₂ e	-	-	-	-	-	
Use of sold products	Consolidated	t-CO ₂ e	-	-	-	-	-	
End-of-life treatment of sold products	Consolidated	t-CO ₂ e	-	-	15,400	23,200	26,400	
Leased assets (downstream)	Consolidated	t-CO ₂ e	-	-	400	400	400	
Franchises	Consolidated	t-CO ₂ e	N/A	N/A	N/A	N/A	N/A	
Investments	Consolidated	t-CO ₂ e	N/A	N/A	N/A	N/A	N/A	
Total [*]	Consolidated	t-CO ₂ e			374,300	375,600	429,300	

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

^{*2.} Non-consolidated data for FY2020 onward include that for the Joetsu Plant.

^{*2.} Emissions (t-CO₂e) / Consolidated sales (million yen)

^{*3.} Data collection on a consolidated basis started in FY2019.





Energy Usage (oil equivalent)

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Manufacturing, R&D, and administrative divisions	Non- consolidated	1,000 kL	33,152	33,669	34,939	38,700	40,325

Energy Usage

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Non-renewable fuels purchased and consumed (A) (nuclear power, coal, oil, natural gas, etc.)	Non- consolidated	MWh	138,353	136,585	138,083	155,201	165,494
Non-renewable electricity purchased (B)	Non- consolidated	MWh	80,057	80,049	78,491	95,819	98,505
Steam, heat, cooling and other non- renewable energy purchased (C)	Non- consolidated	MWh	3,067	3,055	3,070	3,452	3,433
Renewable energy purchased or generated (D) (wind, photovoltaic, biomass, hydroelectric, geothermal, etc.)	Non- consolidated	MWh	64	60	58	59	57
Non-renewable energy sold (E) (electricity, heating, cooling)	Non- consolidated	MWh	0	0	0	0	0
Total non-renewable energy consumed (A+B+C-E)	Non- consolidated	MWh	221,477	219,689	219,644	254,472	267,432

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Industrial Waste

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Amount of industrial waste generated	Non- consolidated	tons	20,552	21,491	23,204	25,153	28,424
Amount of resources recovered	Non- consolidated	tons	16,380	17,493	19,584	20,449	23,290
Final disposal amount	Non- consolidated	tons	1,148	870	847	404	298
Recycling rate	Non- consolidated	%	79.7	81.4	84.4	81.3	82.3

Air Emissions

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Volatile organic compounds (VOCs)	Non- consolidated	tons	24.5	25.6	28.6	33.3	52.1
Dichloromethane	Non- consolidated	tons	3.9	3.9	4.9	4.0	3.6
Formaldehyde	Non- consolidated	tons	0.14	0.16	0.04	0.04	0.15
NOx	Non- consolidated	tons	9.2	8.2	9.1	7.5	7.7
SOx	Non- consolidated	tons	1.2	1.4	1.3	1.0	0.7
Dust	Non- consolidated	tons	0.5	0.6	0.9	0.5	0.5

Control of Wastewater

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
COD	Non- consolidated	tons	132.1	133.7	145.2	122.6	124.2
Total phosphorus emissions	Non- consolidated	tons	1.4	1.6	4.1	3.2	2.0
Total nitrogen emissions	Non- consolidated	tons	75.2	93.2	72.0	83.2	70.4
ss*	Non- consolidated	tons	50.0	45.3	46.0	48.2	31.9

^{*} SS: Suspended solids. SS is a water quality indicator generally referring to insoluble substances of 2 mm or less in diameter suspended in water. Made up of organic and inorganic matter and originating from decayed animal and plant sources such as plankton and algae, sediment and silt, sewage, factory effluent, etc. The increase in SS worsens transparency, and influences underwater photosynthesis by preventing light penetration.

PRTR Substances

Indicator		Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	Atmosphere	Non- consolidated	tons	15.9	17.1	18.9	16.8	25.2
Emissions of PRTR	Water bodies	Non- consolidated	tons	11.5	11.4	13.3	9.1	14.7
substances	Soil	Non- consolidated	tons	0	0	0	0	0
	Total*	Non- consolidated	tons	27.4	28.5	32.2	25.9	39.9

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Usage of Water Resources

Sustainable Management

	Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	Municipal water (tap water)	Non- consolidated	1,000m ³	371	348	356	390	363
	Industrial water	Non- consolidated	1,000m ³	6,507	6,534	7,521	7,874	8,098
Water resource input	Groundwater	Non- consolidated	1,000m ³	1,607	1,624	2,283	1,828	1,848
	Total*1	Non- consolidated	1,000m ³	8,486	8,505	10,160	10,092	10,309
	Water withdrawals in water stressed areas*2	Non- consolidated	1,000m ³	0	0	0	0	0
Amount of water di	scharged** ³	Non- consolidated	1,000m ³	9,596	9,585	10,577	9,919	10,011
Amount of water re	mount of water recycled for use		1,000m ³	0	0	0	0	0
Rate of water recyc	ate of water recycled		%	0	0	0	0	0

Highlight

Environment

Environmental Accounting

					FY 2	2017	FY:	2018	FY 2	2019	FY 2	2020	FY 2	021
	Category		Scope	Unit	Amount invested	Expenses								
		Air pollution prevention	Non- consolidated	Million yen	98.4	116.2	85.9	98.3	40.2	83.9	20.9	97.0	37.1	124.2
		Water pollution prevention	Non- consolidated	Million yen	24.7	239.2	40.6	223.9	70.5	148.0	109.7	174.8	266.9	178.9
Inside	Pollution prevention	Underground seepage prevention	Non- consolidated	Million yen	5.9	13.2	52.0	6.0	13.4	10.0	5.5	3.7	4.9	5.6
business areas		Noise and vibration prevention	Non- consolidated	Million yen	0.0	0.2	4.3	6.1	2.4	1.8	17.2	6.2	6.0	0.0
		Other	Non- consolidated	Million yen	-	160.6	-	190.6	-	386.0	-	435.0	-	394.7
	Global envi	ronmental	Non- consolidated	Million yen	152.9	41.1	102.9	8.1	40.3	20.1	172.6	100.4	244.6	92.3
	Resource re	cycling	Non- consolidated	Million yen	66.1	500.1	3.9	565.3	30.9	576.7	106.6	709.8	111.2	772.2
Upstream /	Containers packaging r outsourcing	ecycling	Non- consolidated	Million yen	-	0.4	-	1.0	-	1.0	-	0.4	-	0.3
downstream	Sewage pro	cessing	Non- consolidated	Million yen	-	81.7	-	90.9	-	90.3	-	78.7	-	75.2
	System dev operation	elopment and	Non- consolidated	Million yen	-	93.4	-	100.4	-	87.4	-	105.3	-	174.9
	Environmen monitoring		Non- consolidated	Million yen	-	51.7	-	41.8	-	38.5	-	42.5	-	38.3
Management activity	Information	n disclosure	Non- consolidated	Million yen	-	9.5	-	8.7	-	5.6	-	6.3	-	6.3
	Education, other	training, and	Non- consolidated	Million yen	-	88.9	-	88.6	-	80.1	-	59.4	-	59.3
	Greening		Non- consolidated	Million yen	-	163.0	-	97.5	1.0	58.0	-	70.0	0.5	43.9
R&D			Non- consolidated	Million yen	-	316.3	-	178.1	-	81.7	-	57.2	-	39.2
Social activity	/		Non- consolidated	Million yen	-	9.0	-	8.7	-	9.7	-	8.9	-	9.0
Environment	al damage		Non- consolidated	Million yen	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0
Total [*]			Non- consolidated	Million yen	348.0	1,884.6	289.6	1,712.0	198.7	1,678.9	432.5	1,955.5	671.3	2,014.5

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

^{*1.} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the

^{*2.} Assessments have identified that regions where our manufacturing facilities are located (Fukuyama in Hiroshima Prefecture, Asa in Yamaguchi Prefecture, Tokyo, Joetsu in Niigata Prefecture, Takasaki in Gunma Prefecture, Himeji in Hyogo Prefecture, Kashima in Ibaraki Prefecture) as not being subject to water stress.

^{*3.} Industrial water and groundwater used and discharged after being treated so as to recover quality equivalent to or exceeding the original level.

Social

Economic Effects from Environmental Protection Measures

Sustainable Management

1	Targets of evalu	uation of effects	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
		Air pollution prevention	Non-consolidated	Million yen	0.0	0.0	0.0	0.0	0.0
	Pollution	Water pollution prevention	Non-consolidated	Million yen	0.0	0.0	0.0	0.0	3.5
	control effect	Reduction of the amount of imposition on pollution load	Non-consolidated	Million yen	0.4	0.1	0.4	0.4	0.6
Inside business		Noise and vibration prevention	Non-consolidated	Million yen	0.0	0.0	0.0	0.0	0.0
areas effects	Global environment protection effect	Global warming prevention and energy conservation	Non-consolidated	Million yen	45.6	53.5	55.9	112.8	80.4
		Waste reduction	Non-consolidated	Million yen	1.6	2.1	9.5	9.5	4.1
	Waste and recycling	Sale of recycled resources	Non-consolidated	Million yen	13.3	12.8	12.9	10.5	17.3
	,	Other	Non-consolidated	Million yen	8.6	6.3	0.0	0.0	7.0
Upstream / downstream effects	Containers re	cycling	Non-consolidated	Million yen	0.0	69.6	62.6	73.6	54.2
Other	Other		Non-consolidated	Million yen	0.0	0.0	0.0	0.0	0.0
Total*			Non-consolidated	Million yen	69.4	144.4	141.3	206.8	167.1

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Environment-related Capital Investments

Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Air pollution prevention equipment	Non- consolidated	Million yen	98.4	85.9	40.2	20.9	37.1
Water pollution prevention equipment	Non- consolidated	Million yen	24.7	40.6	70.5	109.7	266.9
Underground seepage prevention equipment	Non- consolidated	Million yen	5.9	52.0	13.4	5.5	4.9
Noise and vibration prevention equipment	Non- consolidated	Million yen	0.0	4.3	2.4	17.2	6.0
Industrial waste processing equipment	Non- consolidated	Million yen	66.1	3.9	30.9	106.6	111.2
Plant greening	Non- consolidated	Million yen	0.0	0.0	1.0	1.8	0.5
Energy conservation and global warming prevention	Non- consolidated	Million yen	152.9	102.9	40.3	172.6	244.6
Total*	Non- consolidated	Million yen	348.0	289.6	198.7	434.3	671.3

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Safety- & Health-related Capital Investments

Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Equipment aging measures	Non- consolidated	Million yen	278.2	327.9	469.0	292.9	490.9
Safety and work environment measures	Non- consolidated	Million yen	168.5	164.8	165.3	171.4	171.4
Explosion, fire and leakage measures	Non- consolidated	Million yen	23.9	12.8	39.4	9.2	14.1
Earthquake and other natural disasters measures	Non- consolidated	Million yen	40.8	11.0	2.6	51.4	4.4
Other	Non- consolidated	Million yen	32.5	34.9	4.0	4.5	6.4
Total [*]	Non- consolidated	Million yen	543.9	551.4	680.3	529.4	687.1

^{*} Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant

ISO14001 Certification

Business site	Certification date	Certification body	Certification number
Fukuyama Plant	April 1999	JCQA	JCQA-E-0062
Asa Plant	September 1998	JCQA	JCQA-E-0987
Tokyo Plant	December 1998	JCQA	JCQA-E-0036
Joetsu Plant (including logistics center)	August 2002	SGS	JP15/071413
Takasaki Plant	January 2001	JCQA	JCQA-E-0101
Himeji Plant	March 1999	JIA-QA	JE0054H
Kashima Plant	March 1999	JCQA	JCQA-E-0046
KAYAKU CHEMICAL (WUXI)	August 2006	UCC	02421E32060755R0M
WUXI ADVANCED KAYAKU CHEMICAL	July 2007	cQc	0012E33375R4M/3200
WUXI POLATECHNO OPTICS	April 2006	UCC	02420E31011518R2M
Kayaku Safety Systems Europe	December 2002	BVCZ	250302-2017-AE-CZS-Rv
Kayaku Safety Systems (Huzhou)	June 2016	SNQA	42144
Coverage ratio*			

 $^{^{*} \ \ \}mathsf{Percentage} \ \mathsf{of} \ \mathsf{ISO} \ \mathsf{14001-certified} \ \mathsf{manufacturing} \ \mathsf{facilities} \ \mathsf{owned} \ \mathsf{by} \ \mathsf{Nippon} \ \mathsf{Kayaku} \ \mathsf{and} \ \mathsf{its} \ \mathsf{consolidated} \ \mathsf{subsidiaries}.$

^{*} The coverage of ISO 14001-certified manufacturing facilities of Nippon Kayaku on a non-consolidated bases is 100%.

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List of Business Sites with Quality Management System Certification

Business site	ISO9001	ISO13485	IATF16949
Fukuyama Plant	•		
Asa Plant	•		
Tokyo Plant	•		
Functional Chemicals Group (excluding Polatechno Division)	•		
Functional Chemicals R&D Laboratories	•		
Taiwan Nippon Kayaku Co., Ltd. (Functional Chemicals Business)	•		
Polatechno Division	•		
Joetsu Plant	•		
WUXI POLATECHNO OPTICS	•		
Takasaki Plant	•	•	
Pharmaceuticals Group	•	•	
Pharmaceutical Research Laboratories	•	•	
Himeji Plant			•
Safety Systems Group			•
Research & Development Division			•
Kashima Plant	•		
Agrochemicals Division	•		
Agrochemicals Laboratories	•		
NIPPONKAYAKU FOOD TECHNO	•		
мохтек	•		
Dejima Optical Films	•		
RaySpec	•		
KAYAKU Advanced Materials	•		
KAYAKU CHEMICAL (WUXI)	•		
WUXI ADVANCED KAYAKU CHEMICAL	•		
Kayaku Safety Systems Europe			•
Kayaku Safety Systems (Huzhou)			•
Kayaku Safety Systems de Mexico			•
Kayaku Safety Systems Malaysia			•

Environment-related Accidents / Violations of Environmental Laws and Regulations

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Number of serious environment-related accidents	Consolidated	Cases	0	0	0	0	0
Number of serious violations of environmental laws and regulations	Consolidated	Cases	0	0	0	0	0
Amount of fines and penalties for violations of environmental laws and regulations	Consolidated	Yen	0	0	0	0	0

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Social Data -

Employees*1

Indicator	Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	Male	Non- consolidated	Persons	1,522	1,749	1,730	1,751	1,754
Full-time employees	Female	Non- consolidated	Persons	323	330	323	326	330
rutt-time emptoyees	Total	Non- consolidated	Persons	1,845	2,079	2,053	2,077	2,084
	Percentage of females	Non- consolidated	%	17.5	15.8	15.7	15.6	15.8
	20s and under	Non- consolidated	Persons	375	422	402	394	376
	30s	Non- consolidated	Persons	481	569	580	579	575
Full-time employees (by age group)	40s	Non- consolidated	Persons	519	576	582	576	585
	50s	Non- consolidated	Persons	467	505	497	523	547
	60s and over	Non- consolidated	Persons	3	7	8	5	1
	Male	Non- consolidated	Age	40.4	40.0	39.7	39.8	40.2
Average age	Female	Non- consolidated	Age	41.3	41.6	42.3	42.6	42.8
	Total	Non- consolidated	Age	40.6	40.2	41.0	40.3	40.6
	Male	Non- consolidated	Years	14.9	14.4	14.1	14.2	14.5
Average length of service	Female	Non- consolidated	Years	15.5	15.6	16.2	16.5	16.6
	Total	Non- consolidated	Years	15.0	14.6	15.2	14.6	14.9

Indi	cator	Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
		Male	Non- consolidated	Persons	306	318	315	359	321
	Under general	Female	Non- consolidated	Persons	30	35	36	24	38
	manager	Total	Non- consolidated	Persons	336	353	351	383	359
		Percentage of females	Non- consolidated	%	8.9	9.9	10.2	6.2	10.5
		Male	Non- consolidated	Persons	132	138	142	74	68
Managers	General manager	Female	Non- consolidated	Persons	3	3	6	4	4
managers	and above	Total	Non- consolidated	Persons	135	141	148	78	72
		Percentage of females	Non- consolidated	%	2.2	2.1	4.0	5.1	5.5
		Male	Non- consolidated	Persons	438	456	457	468	476
	Overall	Female	Non- consolidated	Persons	33	38	42	44	47
	Overall	Total	Non- consolidated	Persons	471	494	499	512	523
		Percentage of females	Non- consolidated	%	7.0	7.7	8.4	8.6	9.0
Number of te	mporary emp	loyees ^{*2}	Non- consolidated	Persons	577	554	613	614	606
		Male	Non- consolidated	Persons	-	-	-	5	19
Contract emp	oloyees	Female	Non- consolidated	Persons	-	-	-	14	28
		Total	Non- consolidated	Persons	-	-	-	19	47

^{*1.} The data is as of March 31 of each year, unless otherwise described.

Employees (consolidated)

Indicator	Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Full-time employees	Total	Consolidated	Persons	5,684	5,814	5,769	5,664	5,703

^{*2.} Average number of people in each fiscal year

Social





Diversity

Indicator	Category	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	Male	Non- consolidated	Persons	34	59	60	49	41
New employees (new	Female	Non- consolidated	Persons	5	5	4	8	7
graduates)*1	Total	Non- consolidated	Persons	39	64	64	57	48
	Percentage of females	Non- consolidated	%	12.8	7.8	6.2	14.0	14.5
	Male	Non- consolidated	Persons	23	27	35	28	32
New employees (mid-	Female	Non- consolidated	Persons	8	3	3	6	7
career hires)*2	Total	Non- consolidated	Persons	31	30	38	34	39
	Percentage of females	Non- consolidated	%	25.8	10.0	7.8	17.6	17.9
Percentage of employees we disabilities	vith	Non- consolidated	%	2.08	1.82	1.97	1.90	1.99
(Statutory minimum rate)			%	2.20	2.20	2.20	2.20	2.30
Rehiring of retired employe	ees	Non- consolidated	Persons	116	139	153	157	142
Rehiring rate of retired em	oloyees	Non- consolidated	%	60.9	62.7	70.5	84.1	57.6

*1. Number of employees who entered the company in April of the following fiscal year

Sustainable Management

*2. Number of employees who entered during each fiscal year from April to March

Human Resource Development

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Average training and development hours per full-time employee	Non- consolidated	Hours	-	-	-	41	13

Work-life Balance

Governance

Indicator		Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total annual working hours employee	per	Non- consolidated	Hours	1,833	1,919	1,911	1,885	1,911
Average overtime per mont members)	h (union	Non- consolidated	Hours	12.8	13.3	12.7	11.3	12.7
Rate of annual paid leave da	ays taken	Non- consolidated	%	59.2	61.1	60.1	65.8	59.8
Employees who started mat leave ^{*1}	ternity	Non- consolidated	Persons	5	8	13	13	11
Employees who started	Male	Non- consolidated	Persons	1	3	5	11	9
parental leave*1	Female	Non- consolidated	Persons	5	8	13	13	11
Return to work rate after taking maternity/parental	Male	Non- consolidated	%	100	100	100	100	100
leave	Female	Non- consolidated	%	100	100	100	100	100
Retention rate of	Male	Non- consolidated	%	100	100	100	100	100
employees after taking maternity/parental leave	Female	Non- consolidated	%	100	100	100	100	100
Employees working	Male	Non- consolidated	Persons	1	2	2	0	1
shorter hours for childcare	Female	Non- consolidated	Persons	23	26	31	43	42
Days of nursing leave taken		Non- consolidated	Persons	0	1	1	0	0
Average annual salary		Non- consolidated	Thousand yen	7,478	7,460	7,173	7,102	7,344
Voluntary retirement		Non- consolidated	Persons	33	47	37	41	48
Employee turnover rate		Non- consolidated	%	1.8	2.1	1.7	1.8	2.1
Rate of employee turnover of voluntary retirement	due to	Non- consolidated	%	1.8	2.1	1.7	1.8	2.1
Employee turnover within t	hree years*2	Non- consolidated	Persons	7	6	5	7	7
Rate of employee turnover years	within three	Non- consolidated	%	4	4	3	4	4
Transfers		Non- consolidated	Persons	0	0	2	1	2

^{*1.} Does not include those who are still on leave that started in the previous fiscal year.

^{*2.} Number of employees leaving the company within their first three years, among new graduates hired in each fiscal year

Freedom of Association

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Union members*1	Non- consolidated*3	Persons	1,753	1,762	1,871	1,753	1,695
Rate of union members*2	Non- consolidated ^{*3}	%	100	100	100	100	100

- *1 Data as of March 31 of each fiscal year.
- *2. Number of union members / number of eligible people (excluding those in managerial positions and specified by agreement
- *3. Includes some affiliates.

Occupational Health and Safety

Indicator		Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Percentage of sites with OI (Occupational Health and : Assessment Series) 18001	Safety	Non- consolidated	%	0	0	0	0	0
Serious accidents, including work- related deaths		Non- consolidated	Cases	1	0	0	0	0
107-ull-s- d f-s-lisi	Full-time employees	Non- consolidated	Persons	0	0	0	0	0
Work-related fatalities	Contract employee	Non- consolidated	Persons	0	0	0	0	0
Occupational accident	Full-time employees	Non- consolidated	*2	1.75 (9Cases)	0.43 (2Cases)	0.40 (2Cases)	0.18 (1Cases)	0.19 (1Cases)
frequency rate*1	Contract employee	Non- consolidated	*2	0	4.47 (1Cases)	0	0	0
Occupational accident severity rate*1		Non- consolidated	*3	0.086	0.012	0.031	0	0
Violations of occupational health and safety-related regulations and codes		Non- consolidated	Cases	0	0	0	0	0

- *1. Data for each year from April to March
- *2 Total number of deaths and injuries caused by occupational accidents per one million actual hours worked
- *3. Total number of working days lost per one million actual hours worked

Employee Health

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Percentage of employees receiving regular health checkups*	Non- consolidated	%	100	100	100	100	100
Percentage of employees receiving stress checks*	Non- consolidated	%	97.7	97.5	97.3	97.2	98.1

^{*} Employees on temporary leave excluded

Research and Development

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
R&D expenses	Consolidated*	Billion yen	14	12.1	12.5	11.1	12.5
Ratio of R&D expenses to net sales	Consolidated*	%	8.8	7.2	7.3	6.3	7.2

^{*} Equity method affiliates included.

Social Contribution Activities

Indicator	Scope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Spending on social contribution activities	Non- consolidated	Million yen	159	179	254	146	154
Of which, total amount of donations	Non- consolidated	Million yen	129	144	222	114	123
Of which, other than the above	Non- consolidated	Million yen	30	34	31	32	31

Governance Data

Governance System*

Indicator	Sco	ope	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
		Male	Persons	7	7	7	7	6
	Inside directors	Female	Persons	0	0	0	0	0
		Total	Persons	7	7	7	7	6
Directors	Outside	Male	Persons	2 (2)	2 (2)	2 (2)	3 (3)	3 (3)
	(independent)	Female	Persons	0	0	0	0	0
	directors	Total	Persons	2 (2)	2 (2)	2 (2)	3 (3)	3 (3)
	Altogether		Persons	9 (2)	9 (2)	9 (2)	10 (3)	9 (3)
Average tenure	9		Years	2.6	2.4	2.0	2.7	3.0
Percentage of (actual)	independent out	side directors	%	22	22	22	30	33
Percentage of	female directors		%	0	0	0	0	0
Executive dire	ctors		Persons	7	7	7	7	6
	Inside audit & Male	Male	Persons	2	2	2	2	1
	supervisory board	Female	Persons	0	0	0	0	1
	members	Total	Persons	2	2	2	2	2
Audit & supervisory board	Outside (independent)	Male	Persons	3 (1)	3 (2)	3 (2)	3 (2)	3 (2)
members	audit & supervisory	Female	Persons	0	0	0	0	0
	board members	Total	Persons	3 (1)	3 (2)	3 (2)	3 (2)	3 (2)
	Altogether		Persons	5 (1)	5 (2)	5 (2)	5 (2)	5 (2)
Average tenure	9		Years	1.4	1.6	1.8	2.8	3.0
Percentage of independent outside audit & supervisory board members (actual)		%	20	40	20	40	40	
Percentage of female audit & supervisory board members		%	0	0	0	0	20	

^{*} Data as of the closing of the general meeting of shareholders held in June of each fiscal year

Number of Board Meetings and Attendance*

Indicator	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Number of board of directors' meetings	Sessions	14	14	14	14	14
Average attendance of directors at board meetings	%	99.2	97.5	100	98.5	100
Average attendance of audit & supervisory board members at board of directors' meetings	%	92.9	100	95.6	97.1	100
Number of audit & supervisory board meetings	Sessions	12	12	12	12	12
Average attendance of audit & supervisory board meetings	%	97.1	100	94.8	96.7	100

^{*} Data for each fiscal year from April to March

Officers' Remuneration*

C	Category	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Directors	Total remuneration	Million yen	454	443	443	449	410
(excluding outside directors)	Number of officers	Persons	9	9	9	7	8
Audit & supervisory board members	Total remuneration	Million yen	44	44	44	44	45
(excluding outside audit & supervisory board members)	Number of officers	Persons	3	2	3	2	3
Outside officers	Total remuneration	Million yen	40	40	40	47	55
Outside officers	Number of officers	Persons	5	6	5	6	6
Total		Million yen	538	527	527	540	510

^{*} The above data for the number and remuneration of directors and audit & supervisory board members include that for those who resigned at the time of closing of the ordinary general meeting of shareholders. No outside officers receive officers' remuneration from Nippon Kayaku's subsidiaries.

Remuneration to Financial Auditors (consolidated)

Indicator	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Remuneration for audit certification	Million yen	92	96	102	89	80
Remuneration for other than the above	Million yen	0	0	1	0	0
Total	Million yen	92	96	103	89	80







Number of Whistleblowing Reports

Nature of reports	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Workplace harassment (power harassment, sexual harassment, etc.)	2	4	8	6	2
Violations of company rules and etiquette	1	3	2	0	0
Labor/management relations	0	2	1	1	1
Other	0	0	0	0	1
Total	3	9	11	7	4

Political Contributions

Indicator	Unit	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Political contributions	Thousand yen	115	115	118	113	104

Categories of Shares Issued (as of March 31, 2022)

Category	Number of shares	Number of voting rights	Notes
Non-voting shares	-	-	-
Shares with restricted voting rights (treasury shares, etc.)	-	-	-
Shares with restricted voting rights (other)	-	-	-
Voting shares (treasury shares, etc.)	Ordinary shares: 2,252,000 (treasury shares)	-	-
	Ordinary shares: 28,000 (cross-held shares)	-	-
Voting shares (other)	Ordinary shares: 168,051,100	1,680,511	-
Shares less than one unit*	Ordinary shares: 172,470	-	-
Total number of shares issued	170,503,570	-	-
Total number of voting rights	-	1,680,511	-

^{*} Shares less than one unit include 70 treasury shares held by Nippon Kayaku.

Social

External Evaluations and Awards

Inclusion in ESG Indexes —

FTSE Blossom Japan Sector Relative Index



FTSE Blossom Japan Sector Relative Index

FTSE Blossom Japan Sector Relative Index, created by FTSE Russell, reflects the performance of Japanese companies that demonstrate strong Environmental, Social and Governance (ESG) practices relative to their respective sectors and is designed to be sector neutral.

It is one of the benchmark stock indices for ESG investments adopted by the Government Pension Investment Fund (GPIF) of Japan. (March 2022)

> FTSE Blossom Japan Index

FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Nippon Kayaku Co., Ltd. has been independently assessed according to the FTSE Blossom Japan Sector Relative Index criteria, and has satisfied the requirements to become a constituent of the FTSE Blossom Japan Sector Relative Index. Created by the global index provider FTSE Russell, the FTSE Blossom Japan Sector Relative Index is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. FTSE Blossom Japan Sector Relative Index indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.

MSCI Japan ESG Select Leaders Index

2022 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

MSCI Japan ESG Select Leaders Index is created by selecting Japanese companies with high Environmental, Social and Governance (ESG) performance, using MSCI Japan IMI Top 700 as its parent index. It is one of the benchmark stock indices for ESG investments adopted by the Government Pension Investment Fund (GPIF) of Japan. (December 2021)

➤ MSCI ESG Select Leaders Index 🗖

The inclusion of Nippon Kayaku Co., Ltd. in any MSCI indices and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Nippon Kayaku Co., Ltd. by MSCI Inc. or any of its affiliates. The MSCI indices are the exclusive property of MSCI. MSCI and MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

MSCI Japan Empowering Women Index (WIN)

2022 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

MSCI Japan Empowering Women Index (WIN) is created by selecting Japanese companies that demonstrate strong practices for empowering women, using MSCI Japan IMI Top 700 as its parent index.

It is one of the benchmark stock indices for ESG investments adopted by the Government Pension Investment Fund (GPIF) of Japan. (December 2021)

➤ MSCI Japan Empowering Women Index (WIN)

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S&P/JPX Carbon Efficient Index



S&P/JPX Carbon Efficient Index is an environmental stock index developed jointly by S&P Dow Jones Indices and Japan Exchange Group. This index targets TOPIX constituent companies that have a high carbon efficiency (carbon emissions per unit of sales) and disclose environmental information, factors for increasing the investment weight of companies. It is one of the benchmark stock indices for ESG investments adopted by the Government Pension Investment Fund (GPIF) of Japan. (March 2022)

> <u>S&P/JPX Carbon Efficient Index</u> □

Certification -

Fukuyama Plant Obtained Silver Certification in RBA Audit

The Responsible Business Alliance (RBA) is an industrial coalition dedicated to corporate social responsibility in global supply chains. The RBA Code of Conduct sets out standards for proper supply chain operations, specifically occupational safety, workers treated with dignity and respect, and environmentally friendly business activities.

In January 2022, the Fukuyama Plant underwent a third-party RBA audit (VAP audit), and received a Silver certification, in acknowledgement of proper management for all the audit criteria: labor; health & safety; environment; ethics; and management systems.

Also, to address identified issues, the plant has created improvement plans to implement correction measures.



Recognition and Awards

CDP



CDP is an international NGO that runs a global disclosure system, in which companies and cities are encouraged to report on their environmental impacts and actions related to climate change, water resource protection, and forest conservation, and relevant surveys and evaluations are conducted.

In FY2021, the Nippon Kayaku Group was rated "B" for the Climate Change Report and "C" for the Water Security Report.

EcoVadis

EcoVadis SAS (headquartered in France) hosts an ESG rating platform that assesses more than 85,000 companies and organizations from 160 countries and across 200 sectors. The entity provides comprehensive third-party evaluation in four areas concerning the environment, labor and human rights, ethics, and sustainable procurement.

In April 2022, the Nippon Kayaku Group was awarded the Bronze Medal by EcoVadis in recognition of its performance of sustainability initiatives.

Independent Third-party Assurance Report



Independent Assurance Statement

September 15, 2022

Mr. Atsuhiro Wakumoto President Nippon Kayaku Co., Ltd.

1. Purpos

We, Sustainability Accounting Co., Ltd., have been engaged by Nippon Kayaku Co., Ltd., ("the Company") to provide limited assurance on the Greenhouse Gas (GHG) emissions during the fiscal year 2021, that were 37.4 thousand t-CO₂ for Scope3 (categories 1, 2, 3, 4, 5, 6, 7, 9, 12, 13). The purpose of this process is to express our conclusion on whether the GHG emissions were calculated in accordance with the Company's standards. The Company's management is responsible for calculating the GHG emissions. Our responsibility is to independently carry out a limited assurance engagement and to express our assurance conclusion.

2. Procedures Performed

We conducted our assurance engagement in accordance with International Standard on Assurance Engagement 3000 (ISAE 3000) and International Standard on Assurance Engagement 3410 (ISAE 3410). The key procedures we carried out included:

- · Interviewing the Company's responsible personnel to understand the Company's standards
- · Reviewing the Company's standards
- Performing cross-checks on a sample basis and performing a recalculation to determine whether the GHG emissions were calculated in accordance with the Company's standards.

3. Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that GHG emissions have not been calculated in all material respects in accordance with the Company's

We have no conflict of interest relationships with the Company.

Takashi Fukushima Representative Director

Sustainability Accounting Co., Ltd.



Sustainable Management



Editorial Policy

The Sustainability site provides reports on the Nippon Kayaku Group's environmental, social and governance initiatives and achievements toward achieving a sustainable society, aiming to help our stakeholders gain a better understanding of the Group's activities.

The Nippon Kavaku Group's basic sustainable management policy is to "under its corporate vision, the KAYAKU spirit, the Nippon Kayaku Group will practice sustainable management that responds to the trust placed in it by all of its stakeholders, by ensuring transparency and fairness in management and contributing to the creation of a sustainable environment and society through its

The information contained herein is organized in line with the key sustainability issues ("Materiality") formulated in FY2022. Topics have been chosen in view of both their importance to society with reference to various guidelines (GRI standards, ISO 26000, etc.) and their importance to the Nippon Kayaku Group.

*Note: The information in this report includes not only past and current data but also future plans and expectations as of the time of the report's issuance. These include assumptions and judgements based on information available at the time of writing the report. Future activities and performance may differ from the descriptions presented in this report.

Reporting Period ———

FY2021 (April 1, 2021 through March 31, 2022)

Some of the environmental data for overseas group companies is for the period from January 1, 2021 through December 31, 2021. Also, some information is related to periods outside that specified above.

Scope of Reporting ———

Nippon Kayaku Co., Ltd., and its domestic and overseas group companies

Some of the information on the environment and employees is indicated only on a non-consolidated basis.

Release Date ———

July 29, 2022

Reporting Cycle -

Annual (last release: June 2021; next release: July 2023 [plan])

Reference Guidelines ———

GRI Standards

Sustainability Accounting Standards Board (SASB) Standards

ISO26000

Environmental Accounting Guidelines 2005, Ministry of the Environment, Japan

External Certification ———

In order to improve the credibility of its environmental performance data for greenhouse gas emissions (Scope 1, 2, and 3), the Nippon Kayaku Group entrusts third-party verification of the data to Sustainability Accounting Co., Ltd. and discloses the verification results. This started from FY2021.

For details, please refer to Independent Third-party Assurance Report.

Inquiries ——

Office Hours

9:00 - 17:30 (JST) on weekdays (excluding the company's special holidays)

Contact

Sustainability Promotion Department Corporate Planning Division Strategic Corporate Planning Group Tel: +81-3-6731-5227 Nippon Kayaku Co., Ltd. 1-1, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005, Japan

Inquiry form

Related Information —

For other stakeholder communication tools, we publish the integrated report. The Integrated Report 2022 (for fiscal year ending March 2022) is scheduled to be issued in the fall of 2022.



> Integrated reports