

# ESG Data Collection

## Kureha and Kureha Group

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### Target companies

- Kureha Corporation
- Kureha Group Companies (28 Consolidated Subsidiaries)
  - 17 Group Companies in Japan
  - 11 Overseas Group Companies

### Reporting period

- Listed by item
- The number of employees is as of the end of each fiscal year

August 2023  
Kureha Corporation

## ● Environment

Energy usage, by type (Kureha)							
	Energy usage						
	Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Electricity (purchased)	1,000 GJ	754	793	581	605	764	871
Fuel and heat	1,000 GJ	4,950	4,173	4,369	4,369	4,990	4,571
Total	1,000 GJ	5,704	4,966	4,950	4,975	5,254	5,442
Crude oil equivalent	1,000 kL	147	128	128	128	136	140
vs. Previous year	%	—	98.4	99.7	100.5	105.6	103.6
vs. FY2013	%	100.0	87.1	86.8	87.2	92.1	95.4

Energy sales volume, by type (Kureha)							
	Energy sales volume						
	Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Electricity	1,000 GJ	372	366	388	369	374	363
Industrial steam	1,000 GJ	8.4	6.5	9.4	8.1	8.6	13.4
Total	1,000 GJ	380	372	398	378	382	377
Crude oil equivalent	1,000 kL	9.8	9.6	10.3	9.7	9.9	9.7

Energy usage, by intensity: comparison to previous fiscal year, 5 fiscal year average (Kureha)							
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022	5 fiscal year average intensity
vs. Previous year	%	—	101.2	104.2	94.5	99.3	99.7

Benchmark index status (Kureha)							
Sector	Benchmark index status						
Name of target business	Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Alkali industry	GJ/t	3.62	3.65	3.62	3.64	3.67	3.43

Energy consumption (Kureha Group)							
	Energy usage						
	Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Kureha	Crude oil equivalent 1,000 kL	147	128	128	124	136	140
Group Companies in Japan	Crude oil equivalent 1,000 kL	13	7	7	8	7	8
Overseas Group Companies	Crude oil equivalent 1,000 kL	10	15	14	14	15	14
Total	Crude oil equivalent 1,000 kL	170	150	149	146	157	161
vs. Previous year	%	—	98.6	99.1	98.0	107.9	102.7
vs. FY2013	%	100.0	88.2	87.4	85.7	92.4	94.9

<b>CO<sub>2</sub> generated from business activities (Kureha)</b>							
	CO <sub>2</sub> emission volume						
	Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Head office, other offices	1,000 t-CO <sub>2</sub>	4	3	2	2	1	1
The Iwaki Factory	1,000 t-CO <sub>2</sub>	427	367	375	354	370	385
The plastics processing factory	1,000 t-CO <sub>2</sub>	13	10	9	7	7	7
Total	1,000 t-CO <sub>2</sub>	444	380	386	363	377	393
vs. Previous year	%	—	95.6	101.7	93.9	104.0	104.3
vs. FY2013	%	100.0	85.6	87.1	81.8	85.0	88.7

<b>CO<sub>2</sub> generated from business activities: From energy and non-energy related (Kureha Group)</b>								
	CO <sub>2</sub> emission volume							
	Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022	
Energy-related	Kureha	1,000 t-CO <sub>2</sub>	426	362	376	363	379	393
	Group Companies in Japan	1,000 t-CO <sub>2</sub>	21	22	23	21	20	22
	Overseas Group Companies	1,000 t-CO <sub>2</sub>	18	30	28	28	30	26
Energy-related—Kureha Group total		1,000 t-CO <sub>2</sub>	465	414	428	412	429	442
vs. Previous year		%	—	94.7	103.4	96.3	104.1	103.1
vs. FY2013		%	100.0	89.0	92.0	88.6	92.2	95.0
Non-energy-related*	Kureha	1,000 t-CO <sub>2</sub>	13	9	10	9	9	0.1
	Group Companies in Japan	1,000 t-CO <sub>2</sub>	164	146	148	138	145	100
	Overseas Group Companies	1,000 t-CO <sub>2</sub>	0	0	0	0	0	0
Non-energy-related—Kureha and Group Companies in Japan		1,000 t-CO <sub>2</sub>	177	155	158	147	154	101
vs. Previous year		%	—	100.8	102.2	92.7	104.9	65.3
vs. FY2013		%	100.0	87.6	89.5	82.9	87.0	56.8
Total (Energy-related + Non-energy-related)		1,000 t-CO <sub>2</sub>	642	569	586	559	583	543
vs. Previous year		%	—	96.3	103.0	95.3	104.3	93.1
vs. FY2013		%	100.0	88.6	91.3	87.0	90.8	84.5
* The calculation method was revised for the FY2022 figures.								

CO <sub>2</sub> generated from business activities: Scope 1 and Scope 2 (Kureha Group)								
		CO <sub>2</sub> emission volume						
		Unit	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Scope 1*	Kureha	1,000 t-CO <sub>2</sub>	—	337	356	340	359	355
	Group Companies in Japan	1,000 t-CO <sub>2</sub>	—	162	166	154	160	103
	Overseas Group Companies	1,000 t-CO <sub>2</sub>	—	5	4	4	4	3
Scope 1 Kureha Group total		1,000 t-CO <sub>2</sub>	—	504	526	499	523	462
vs. Previous year		%	—	98.6	104.3	94.8	104.8	88.3
Scope 2	Kureha	1,000 t-CO <sub>2</sub>	—	42	30	31	31	38
	Group Companies in Japan	1,000 t-CO <sub>2</sub>	—	6	6	6	5	20
	Overseas Group Companies	1,000 t-CO <sub>2</sub>	—	25	24	24	26	23
Scope 2 Kureha Group total		1,000 t-CO <sub>2</sub>	—	74	60	61	62	81
vs. Previous year		%	—	92.0	81.9	101.2	102.3	129.3
Total of Scope 1 and Scope 2		1,000 t-CO <sub>2</sub>	—	578	586	559	585	542
vs. Previous year		%	—	97.7	101.5	95.5	104.6	92.7
* The calculation method was revised for the FY2022 figures								

GHG Emissions by Scope (Kureha)				
		Unit	FY2021 <sup>2</sup>	FY2022
Scope 1		1,000 t-CO <sub>2</sub>	359	355
Scope 2		1,000 t-CO <sub>2</sub>	31	38
Scope 3 <sup>1</sup>	Category 1: Purchased goods and services	1,000 t-CO <sub>2</sub>	261	303
	Category 2: Capital goods	1,000 t-CO <sub>2</sub>	9	17
	Category 3: Fuel- and energy-related activities	1,000 t-CO <sub>2</sub>	36	37
	Category 4: Upstream transportation and distribution	1,000 t-CO <sub>2</sub>	91	75
	Category 5: Waste generated in operations	1,000 t-CO <sub>2</sub>	0.7	1
	Category 6: Business travel	1,000 t-CO <sub>2</sub>	0.2	0.2
	Category 7: Employee commuting	1,000 t-CO <sub>2</sub>	0.7	0.7
Category 12: End-of-life treatment of sold products		1,000 t-CO <sub>2</sub>	58	55
Total of Scope 1, Scope 2 and Scope 3		1,000 t-CO <sub>2</sub>	847	883
<p>1. Scope 3: Calculations are fundamentally based on database emissions intensity. The database used as reference is "IDEAv2 (for calculating GHG emissions through supply chain) ver. 2.3" or "Ministry of the Environment database: Emission Intensity Database for Calculating Greenhouse Gas Emissions of Organizations through Supply Chains ver. 3.2". None of our businesses fall into the following categories: Category 8: Upstream leased assets, Category 13: Downstream leased assets, and Category 14: Franchises. Category 9: Downstream transportation and distribution, Category 10: Processing of sold products, and Category 11: Use of sold products, are not yet calculated because, although they are all subject to calculation, it is difficult to reliably determine the volume of calculation activities due to post-sale processing and the wide variety of final products and final consumers, as most of our products are intermediate products. In addition, Category 15: Investments are excluded from the calculation because Kureha is neither an investment business nor a business that provides financial services.</p> <p>2. Scope 3 emissions for FY2021 were re-calculated in accordance with the FY2022 revision of the calculation method for Scope 3.</p>				

<b>Fluorocarbons Emissions Control Act—Calculated amount of leakage (Kureha)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Head office, other offices	t-CO <sub>2</sub>	0	0	20	3	0
The Iwaki Factory	t-CO <sub>2</sub>	752	430	356	329	449
The plastics processing factory	t-CO <sub>2</sub>	19	22	13	97	16
Total	t-CO <sub>2</sub>	770	452	389	429	465

<b>Atmospheric (Kureha)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
SOx emission volume	t	18	4	4	8	4
NOx emission volume	t	395	432	430	455	413
Soot and dust emission volume	t	11	14	14	7	5

<b>Atmospheric (Kureha Group)</b>						
	Unit	FY2018 <sup>1</sup>	FY2019 <sup>2</sup>	FY2020 <sup>2</sup>	FY2021 <sup>2</sup>	FY2022 <sup>2</sup>
SOx emission volume	t	34	19	28	28	23
NOx emission volume	t	512	545	536	578	541
Soot and dust emission volume	t	16	17	17	10	8
1. Kureha Corporation, 14 Group factories in Japan and overseas						
2. Kureha Corporation, 16 Group companies in Japan, 11 Group companies overseas						

<b>Water withdrawal and total discharge (Kureha)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Water withdrawal	1,000 m <sup>3</sup>	20,342	20,392	20,199	20,257	21,500
City water	1,000 m <sup>3</sup>	81	81	79	44	42
Groundwater	1,000 m <sup>3</sup>	868	848	841	834	779
Industrial water	1,000 m <sup>3</sup>	19,393	19,462	19,279	19,379	20,679
Other	1,000 m <sup>3</sup>	0	0	0	0	0
Total discharge	1,000 m <sup>3</sup>	18,084	18,123	18,059	18,240	18,245

<b>Water withdrawal and total discharge (Group Companies in Japan)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Water withdrawal	1,000 m <sup>3</sup>	1,747	1,812	1,730	1,701	1,691
City water	1,000 m <sup>3</sup>	129	128	124	121	117
Groundwater	1,000 m <sup>3</sup>	286	305	335	333	368
Industrial water	1,000 m <sup>3</sup>	1,213	1,314	1,271	1,247	1,206
Other	1,000 m <sup>3</sup>	118	65	0	0	0
Total discharge	1,000 m <sup>3</sup>	1,523	1,692	1,513	1,547	1,514
- 15 Group companies in Japan						

<b>Water withdrawal and total discharge (Overseas Group Companies)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Water withdrawal	1,000 m <sup>3</sup>	2,126	2,056	1,968	2,027	1,813
City water	1,000 m <sup>3</sup>	499	139	116	127	121
Groundwater	1,000 m <sup>3</sup>	0	0	0	0	0
Industrial water	1,000 m <sup>3</sup>	817	706	750	711	616
Other	1,000 m <sup>3</sup>	810	1,211	1,103	1,189	1,076
Total discharge	1,000 m <sup>3</sup>	1,927	2,018	1,913	2,053	1,673

<b>Water withdrawal and total discharge (Kureha Group)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Water withdrawal	1,000 m <sup>3</sup>	24,215	24,260	23,897	23,985	25,005
City water	1,000 m <sup>3</sup>	709	349	318	292	280
Groundwater	1,000 m <sup>3</sup>	1,154	1,153	1,176	1,167	1,147
Industrial water	1,000 m <sup>3</sup>	21,424	21,481	21,300	21,337	22,501
Other	1,000 m <sup>3</sup>	928	1,276	1,103	1,189	1,076
Total discharge	1,000 m <sup>3</sup>	21,534	21,832	21,485	21,839	21,397
- Kureha Corporation, 15 Group companies in Japan, 11 Group companies overseas						

<b>Discharge-related (Kureha)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
COD emission volume	t	69	84	73	95	91
BOD emission volume	t	20	21	32	36	46
Total nitrogen emission volume	t	32	38	31	44	55
Total phosphorus emission volume	t	8	8	9	9	11



FY2023 Reported volumes of PRTR substances released/transferred (FY2022 Results) (Kureha)								
No.	JPSN (Japan PRTR-SDS Number)	Cabinet order name	Release volumes (kg)				Transfer volumes (kg)	
			Air	Public water bodies	Land (on site)	Landfill on site	Sewage	Off-site
1	4	<i>Acrylic acid and its water-soluble salts</i>	0.0	0.0	0.0	0.0	0.0	1,000
2	9	<i>Acrylonitrile</i>	4,200	1.2	0.0	0.0	0.0	840
3	15	<i>Acenaphthene</i>	160	0.0	0.0	0.0	0.0	360
4	16	<i>2,2'-Azobisisobutyronitrile</i>	0.0	0.0	0.0	0.0	0.0	1.0
5	71	<i>Ferric chloride</i>	0.0	0.0	0.0	0.0	0.0	0.4
6	94	<i>Chloroethylene (synonym: Vinyl chloride)</i>	1,600	0.3	0.0	0.0	0.0	140
7	103	<i>1-Chloro-1,1-difluoroethane (synonym: HCFC-142b)</i>	280	0.0	0.0	0.0	0.0	130,000
8	125	<i>Chlorobenzene</i>	2,800	2.8	0.0	0.0	0.0	4,400
9	158	<i>1,1-Dichloroethylene (synonym: Vinylidene chloride)</i>	7,100	1.5	0.0	0.0	0.0	27,000
10	159	<i>cis-1,2-Dichloroethylene</i>	0.0	0.0	0.0	0.0	0.0	780
11	181	<i>Dichlorobenzene</i>	5,500	96	0.0	0.0	0.0	270,000
12	243	<i>Dioxins (mg – TEQ / y)</i>	0.0	1.6	0.0	0.0	0.0	0.0
13	280	<i>1,1,2-Trichloroethane</i>	1.0	0.9	0.0	0.0	0.0	140
14	281	<i>Trichloroethylene</i>	410	0.0	0.0	0.0	0.0	5,500
15	290	<i>Trichlorobenzene</i>	0.0	0.0	0.0	0.0	0.0	33,000
16	300	<i>Toluene</i>	0.1	0.0	0.0	0.0	0.0	1,100
17	302	<i>Naphthalene</i>	4,900	240	0.0	0.0	0.0	6,900
18	340	<i>Biphenyl</i>	110	0.0	0.0	0.0	0.0	270
19	349	<i>Phenol</i>	0.0	0.0	0.0	0.0	0.0	0.0
20	374	<i>Hydrogen fluoride and its water-soluble salts</i>	1.9	0.0	0.0	0.0	0.0	0.3
21	392	<i>Hexane</i>	1,800	0.0	0.0	0.0	0.0	3,300
22	400	<i>Benzene</i>	450	0.1	0.0	0.0	0.0	270
23	420	<i>Methyl methacrylate</i>	6.0	0.0	0.0	0.0	0.0	35
24	438	<i>Methylnaphthalene</i>	790	0.0	0.0	0.0	0.0	1,600
		Total	30,109	344	0	0	0	486,637

- The above figures are reported values for substances subject to the PRTR system (Class I Designated Chemical Substances) with an annual handling volume of 1 ton or more.

- Most of the substances that are transferred outside of our business sites are incinerated at Kureha Ecology Management Co., Ltd. (waste disposal business)

- No volume of substances are transferred from the Iwaki Factory to the sewage system because it is not connected to the sewage system.

<b>Waste generation, recycling, and landfill disposal volume (Kureha)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Waste generation volume	1,000 t	20.3	22.1	19.6	26.3	26.1
Recycling volume	1,000 t	11.7	13.0	11.5	15.1	18.3
Landfill disposal volume	1,000 t	3.9	4.1	3.2	6.3	2.4
Recycling rates*	%	57.6	58.6	58.7	57.2	70.0
* Recycling rate = Amount recycled (including heat recovery) / Amount of waste generated x 100						

<b>Waste generation, recycling, and landfill disposal volume (Group Companies in Japan)<sup>1</sup></b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Waste generation volume	1,000 t	41.1	41.9	48.1	44.3	39.6
Recycling volume	1,000 t	13.8	15.2	20.8	19.8	18.0
Landfill disposal volume	1,000 t	27.0	26.6	27.1	23.8	21.3
Recycling rates <sup>2</sup>	%	33.7	36.3	43.2	44.8	45.6
1. The above includes industrial waste and construction waste disposal.						
2. Recycling rate = Amount recycled (including heat recovery) / Amount of waste generated x 100						

<b>Waste generation, recycling, and landfill disposal volume (Overseas Group Companies)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022 <sup>1</sup>
Waste generation volume	1,000 t	2.8	2.8	2.1	2.1	2.1
Recycling volume	1,000 t	1.6	0.4	0.3	0.4	1.4
Landfill disposal volume	1,000 t	0.8	0.8	0.7	0.7	0.6
Recycling rates <sup>2</sup>	%	57.6	14.9	15.1	18.7	66.2
1. We have revised the calculation method for FY2022 to include heat recovery and recycling.						
2. Recycling rate = Amount recycled (including heat recovery) / Amount of waste generated x 100						

<b>Waste generation, recycling, and landfill disposal volume (Kureha Group)</b>			
	Unit		FY2022
Waste generation volume	1,000 t		67.7
Recycling volume	1,000 t		37.7
Landfill disposal volume	1,000 t		24.3
Recycling rates*	%		55.6
* Recycling rate = Amount recycled (including heat recovery) / Amount of waste generated x 100			

<b>Volume of plastic product industrial waste, etc. discharged based on the Plastic Resource Circulation Act* (Kureha)</b>				
	Unit		FY2021	FY2022
Head office, other offices	t		1	17
The Iwaki Factory	t		520	743
The plastics processing factory	t		1,505	1,458
Total	t		2,027	2,218
* Plastic Resource Circulation Act: A law involving the promotion of resource recycling related to plastics				

<b>Volume of recycling entrustment and amount of commission based on the Containers and Packaging Recycling Act (Kureha)</b>						
	Unit	FY2019 application	FY2020 application	FY2021 application	FY2022 application	FY2023 application
Paper containers and packaging	t	166.4	159.3	163.6	167.1	114.5
Plastics containers and packaging	t	68.3	27.1	26.0	27.4	34.6
Commission	10,000 yen	364	223	353	301	399

● Social

Employees and other workers (Kureha Group)										
		FY2020			FY2021			FY2022		
		Kureha	Group Companies in Japan	Overseas Group Companies	Kureha	Group Companies in Japan	Overseas Group Companies	Kureha	Group Companies in Japan	Overseas Group Companies
Employees	Total	1,676	1,891	726	1,663	1,898	698	1,655	1,886	724
	Male	1,309	1,369	563	1,295	1,385	539	1,284	1,369	561
	Female	367	522	163	368	513	159	371	517	163
Temporary employees*	Total	23	230	7	17	224	20	14	215	19
	Male	12	98	5	12	90	17	9	112	18
	Female	11	132	2	5	134	3	5	103	1
Dispatched employees	Total	94	—	—	95	—	—	108	63	17
	Male	—	—	—	—	—	—	62	36	12
	Female	—	—	—	—	—	—	46	27	5
All workers	Total	1,793	—	—	1,775	—	—	1,777	2,164	760
	Male	—	—	—	—	—	—	1,355	1,517	591
	Female	—	—	—	—	—	—	422	647	169

\* This refers to part-time workers hired directly by the Company.

Number of employees by age group (Kureha)						
				FY2020	FY2021*	FY2022
Under 30 years old	Total			238	236	241
	Male			197	193	196
	Female			41	43	45
30-40 years old	Total			390	387	375
	Male			323	323	310
	Female			67	64	65
40-50 years old	Total			472	448	433
	Male			349	339	337
	Female			123	109	96
50-60 years old	Total			418	430	449
	Male			313	315	322
	Female			105	115	127
Over 60 years old	Total			158	162	157
	Male			127	125	119
	Female			31	37	38

\* Since October 2021, the retirement age is being extended in stages to 65 years old.

Number of new hires* (Kureha Group)							
		FY2019	FY2020	FY2021	FY2022		
		Kureha	Kureha	Kureha	Kureha	Group Companies in Japan	Overseas Group Companies
By gender Figures in parentheses indicate the number of career-track employees.	Total	47 (28)	59 (38)	60 (35)	65 (40)	93 (5)	104 (57)
	Male	38 (21)	51 (32)	45 (25)	47 (29)	53 (4)	78 (43)
	Female	9 (7)	8 (6)	15 (10)	18 (11)	40 (1)	26 (14)
* Number of new employees hired (new graduates and mid-career hires).							

Regular employees leaving the Company* (Kureha Group)							
		FY2019	FY2020	FY2021	FY2022		
		Kureha	Kureha	Kureha	Kureha	Group Companies in Japan	Overseas Group Companies
Total	Total	49	70	52	64	88	126
	Male	39	49	43	53	—	—
	Female	10	21	9	11	—	—
Retirees	Total	—	—	—	26	27	4
	Male	—	—	—	23	—	—
	Female	—	—	—	3	—	—
Resignees	Total	—	—	—	38	61	122
	Male	—	—	—	30	—	—
	Female	—	—	—	8	—	—
* The numbers for FY2019–2021 is the total number of retirees and resignees.							

Management position (Kureha Group)						
		FY2020	FY2021	FY2022		
		Kureha	Kureha	Kureha	Group Companies in Japan	Overseas Group Companies
Management positions *	Total	277	251	265	348	129
	Male	262	237	247	326	105
	Female	15	14	18	22	24
	Percentage of women	5.4	5.6	6.8	6.3	18.6
	Non-Japanese nationals (Excluding Japanese)	0.4	0.4	0.4	0.3	64.3
	Percentage of mid-career hires	7.2	8.0	9.1	34.2	61.1
* Management positions = executive officers, directors, advisors, vice presidents						

Paid holidays taken (Kureha)				
	FY2019	FY2020	FY2021	FY2022
Percentage of paid holidays taken*	81.8	72.5	75.7	86.3
* FY2019 and FY2020 are from March 11 of the first year to March 10 of the following year. FY2021 is from March 11, 2021 to March 31, 2022 (excluding September 11 to 30).				

Overtime hours (Kureha)					
	Unit	FY2019	FY2020	FY2021	FY2022
Average monthly overtime hours*	hr/mo	12.9	11.8	12.3	12.7
* FY2019 and FY2020 are from March 11 of the first year to March 10 of the following year. FY2021 is from March 11, 2021 to March 31, 2022 (excluding September 11 to 30).					

Childcare leave system (Kureha Group)							
		Unit	FY2020	FY2021	FY2022		
			Kureha	Kureha	Kureha	Group Companies in Japan	Overseas Group Companies <sup>3</sup>
Number of employees eligible for childcare leave	Total		—	—	58	36	18
	Male		—	—	48	24	12
	Female		—	—	10	12	6
Employees taking childcare leave	Total		8	13	19	19	15
	Male		2	2	8	7	11
	Female		6	11	11	12	4
Use of childcare leave acquisition rate <sup>1</sup>	Total	%	16.3	24.5	32.7	52.7	83.3
	Male		4.7	4.8	16.6	29.1	91.6
	Female		100	100	110	100	66.6
Return to work rate after childcare leave <sup>2</sup>	Total	%	100	100	100	100	100
	Male		—	100	100	100	100
	Female		100	100	100	100	100
<p>1. Percentage of employees taking childcare leave (FY2022) =  (Male) Number of employees who took childcare leave / Number of employees whose spouse gave birth x 100  (Female) Number of employees who took childcare leave / Number of employees who gave birth x 100</p> <p>2. Rate of return from childcare leave (FY2022) = Number of employees who returned to work out of whose childcare leave was scheduled to end in the fiscal year / Number of employees whose childcare leave was scheduled to end in the fiscal year x 100</p> <p>3. Overseas Group companies excludes those in the U.S.</p>							

Childcare leave system (Kureha)					
		Unit	FY2020	FY2021	FY2022
Male employees taking paternity and childcare leave	Male		16	24	33
Male employees' use of paternity and childcare leave	Male	%	37.2	57.1	68.7
Employees using shortened working hours for childcare	Total		19	16	19
	Male		0	0	1
	Female		19	16	18

Nursing leave (Kureha)					
			FY2020	FY2021	FY2022
Employees using nursing leave	Total		5	5	3
	Male		1	2	1
	Female		4	3	2

<b>Spousal overseas transfer leave (Kureha)</b>				
	FY2019	FY2020	FY2021	FY2022
Employees taking leave for spouse's overseas transfer*	0	2	1	0
* The total is for the fiscal year during which the acquisition began.				

<b>Caregiving leave (Kureha)</b>				
	FY2019	FY2020	FY2021	FY2022
Employees who received caregiving leave*	0	0	0	1
Employees who used caregiving leave	6	7	5	4
Employees using shortened working hours for caregiving	0	0	0	0
* The total is for the fiscal year during which the acquisition began.				

<b>Employment of people with disabilities (Kureha)</b>					
	Unit	FY2019	FY2020	FY2021	FY2022
Employment rate	%	2.22	2.45	2.33	2.38
Statutory employment rate	%	2.20	2.30	2.30	2.30
<ul style="list-style-type: none"> <li>- Includes Sunshine Kureha Co., Ltd., a special subsidiary.</li> <li>- Calculated based on enrollment as of June 1 of each year.</li> </ul>					

<b>The number of fatalities as a result of work-related ill health (Kureha)</b>			
	FY2020	FY2021	FY2022
All employees	0	0	0
All workers who are not employees but whose work and/or workplace is controlled by the organization	0	0	0

<b>Occupational accident frequency rate (Kureha)</b>					
	CY2018	CY2019	CY2020	CY2021	CY2022
The Iwaki Factory	1.13	1.73	0.55	2.30	1.54
Chemical industry average	0.90	0.94	0.93	1.07	1.16
The plastics processing factory	0.00	0.00	1.72	0.00	1.91
Plastics manufacturing industry average	1.00	1.25	1.20	1.35	1.21
<ul style="list-style-type: none"> <li>- Source: "Survey on Industrial Accidents," Ministry of Health, Labour and Welfare</li> <li>- Occupational accident frequency rate: Number of lost time injuries and fatalities per 1,000,000 total working hours in the calendar year (January to December)</li> </ul> <p>Formula: (Number of lost time injuries and fatalities due to occupational accidents / Total working hours) x 1,000,000</p>					

<b>Occupational accident severity rate (Kureha)</b>					
	CY2018	CY 2019	CY 2020	CY 2021	CY 2022
The Iwaki Factory	0.001	0.03	0.002	0.01	0.00
Chemical industry average	0.06	0.03	0.03	0.02	0.06
The plastics processing factory	0.00	0.00	0.01	0.00	0.00
Plastics manufacturing industry average	0.12	0.12	0.11	0.09	0.06
<ul style="list-style-type: none"> <li>- Occupational accident severity rate: Number of workdays lost per 1,000 total working hours in the calendar year (January to December).</li> <li>- Formula: (Number of workdays lost / Total working hours) x 1,000</li> </ul>					

<b>Lost time accidents (Kureha Group)</b>						
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Total	Accidents	14	13	5	14	12
Kureha		2	3	2	4	4
Group Companies in Japan		7	5	2	4	6
Overseas Group Companies		5	5	1	6	2
<ul style="list-style-type: none"> <li>- Information is reported by calendar year (January to December) based on the documents sent to the Ministry of Health, Labour and Welfare and the Japanese Chemical Industry Association.</li> </ul>						

<b>Ratio of basic salary and compensation of women to men (Kureha)</b>					
		Unit	FY2020	FY2021	FY2022
Basic salary	Employees	Male: Female	55:45	55:45	54:46
	Temporary employees	Male: Female	59:41	58:42	60:40
Total remuneration	Employees	Male: Female	57:43	57:43	58:42
	Temporary employees	Male: Female	58:42	57:43	60:40
<ul style="list-style-type: none"> <li>- The aggregate amount for temporary employees was revised in FY2022.</li> <li>- Basic salary: Average basic salary for men or women / (Average basic salary for men + Average basic salary for women) x 100</li> <li>- Total compensation: Average total compensation for men or women / (Average total compensation for men + Average total compensation for women) x 100</li> </ul>					

<b>Percentage of employees receiving regular performance and career development reviews* (Kureha)</b>		
	Unit	FY2022
Male	%	99.1
Female	%	98.7
* Calculates the percentage of employees on whom performance evaluations are conducted on a regular basis.		

<b>Average annual hours of training per employee* (Kureha)</b>		
	Unit	FY2022
Employees	Hours	23.8
* Total of (hours of each education and training x Number of employees who took training) / Number of employees at the end of the fiscal year		



## ● Governance

Composition of the Board of Directors and Officers (Kureha)				
	FY2022*			
	Inside Directors	Outside Directors	Total	Percentage of Outside Directors (%)
Total	5	5	10	50
Directors	4	3	7	43
Audit & Supervisory Board Members	1	2	3	67
* As of March 31, 2022				

Compensation of Directors (Kureha)					
Classification	FY2022				
	Aggregate amount of remuneration (Millions of yen)	Amount of remuneration by type (Millions of yen)			Number of Directors
		Base salary	Performance-linked remuneration, etc.	Non-monetary rewards, etc.	
Directors (Excluding Outside Directors)	287	154	109	23	4
Audit & Supervisory Board Member (Excluding Outside Auditors)	18	18	—	—	1
Outside Directors	38	38	—	—	3
Outside Audit & Supervisory Board Members	30	30	—	—	2

Board and Committee Activities (Kureha)			
Category	Members	Number of meetings per year	Main subjects of agenda
Board of Directors	◦President & Chief Executive Officer <b>Yutaka Kobayashi</b> Executive Vice President <b>Michihiro Sato</b> Senior Vice President <b>Yoshio Noda</b> Senior Vice President <b>Hiroyuki Tanaka</b> Outside Director <b>Osamu Tosaka</b> Outside Director <b>Kazunari Higuchi</b> Outside Director <b>Osamu Iida</b>	13	<ul style="list-style-type: none"> <li>- Formulation of Kureha Group New Mid- to Long-term Management Plan</li> <li>- Establishment of Kureha Group Charter of Corporate Behavior</li> <li>- Establishment of Kureha Group Human Rights Policy and Human Rights Code</li> <li>- Establishment of Sustainability Coordination Committee</li> <li>- Revision of Director's compensation system</li> <li>- Direction of the PGA business</li> <li>- Report on the results of evaluation of internal control over financial reporting</li> </ul>
Nomination Advisory Committee	◦Outside Director <b>Osamu Tosaka</b> Outside Director <b>Kazunari Higuchi</b> Outside Director <b>Osamu Iida</b> President & Chief Executive Officer <b>Yutaka Kobayashi</b>	4	<ul style="list-style-type: none"> <li>- Matters pertaining to the appointment and dismissal of the Chairman of the Board, President, Representative Director, and Directors</li> <li>- Matters pertaining to potential successors to the President and CEO and their development plans</li> <li>- Matters pertaining to the appointment and dismissal of Vice Presidents</li> <li>- Diversity of Outside Directors</li> </ul>
Remuneration Advisory Committee	◦Outside Director <b>Osamu Tosaka</b> Outside Director <b>Kazunari Higuchi</b> Outside Director <b>Osamu Iida</b> President & Chief Executive Officer <b>Yutaka Kobayashi</b>	6	<ul style="list-style-type: none"> <li>- Matters pertaining to policies for the structure and system of compensation for Directors and Vice Presidents for FY2023 and beyond</li> <li>- Breakdown of compensation, etc. by individual director</li> </ul>
◦: Chairman			

<b>Annual CEO-to-employee compensation ratios (Kureha)</b>			
	Unit	FY2021	FY2022
Ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual) <sup>1</sup>	%	1958	1801
Ratio of the percentage increase in annual total compensation for the organization's highest-paid individual to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) <sup>2</sup>	%	94	95
1. Annual total compensation ratio: Annual total compensation for the organization's highest-paid individual / Median annual total compensation for all of the organization's employees excluding the highest-paid individual x 100 2. Change in the annual total compensation: Percentage increase in annual total compensation for the organization's highest-paid individual / Median percentage increase in annual total compensation for all of the organization's employees excluding the highest-paid individual x 100			

<b>Whistleblowing system (Kureha and Group Companies in Japan)</b>				
	FY2019	FY2020	FY2021	FY2022
The number of reports	2	10	6	12

<b>Violations of the law (Kureha)</b>				
	FY2019	FY2020	FY2021	FY2022
Antitrust Law	0	0	0	0
Violations of laws concerning security export control	0	0	0	0
Environmental laws and regulations	0	0	0	0
Other violations of the law	—	—	—	0

<b>Marketing and labeling (Kureha)</b>				
	FY2019	FY2020	FY2021	FY2022
Premiums and Representations Act violations	0	0	0	0

<b>Political contributions (Kureha)</b>					
	Unit	FY2019	FY2020	FY2021	FY2022
Total amount	Million yen	0.15	0	0	0

## ● Kureha Group Companies

### Corporate data, Performance data

- The number of occupational accidents (in-house lost time), fatal accidents (in-house), total working hours, occupational accident frequency rate, occupational accident severity rate, equipment accidents, and logistics accidents are for the calendar year (January to December 2022).

#### Target companies

##### Group Companies in Japan

- Resinous Kasei Co., Ltd. (Affiliated company of Kureha Trading Co., Ltd.)
- Kureha Gohsen Co., Ltd.
- Kureha Extron Co., Ltd.
- Kureha Unyu Co., Ltd.
- Kureha Ecology Management Co., Ltd.
- Kureha Construction Co., Ltd.
- Kureha Engineering Co., Ltd. (Affiliated company of Kureha Service Co., Ltd.)
- Kureha Special Laboratory Co., Ltd. (Affiliated company of Kureha Service Co., Ltd.)

##### Overseas Group Companies

- KREHALON B.V. (Affiliated company of Kureha Europe B.V.)
- Kureha PGA LLC (Affiliated company of Kureha America Inc.)
- Kureha (Changshu) Fluoropolymers Co., Ltd. (Affiliated company of Kureha (China) Investment Co., Ltd.)
- Kureha (Shanghai) Carbon Fiber Materials Co., Ltd.
- Kureha Vietnam Co., Ltd.

<b>Resinous Kasei Co., Ltd.</b>	
Incorporated	October 18, 1972
Shared capital	80 million yen
Number of employees	60
Head office	Nihonbashi Horidomecho First, 1-2-10 Nihonbashi Horidomecho, Chuo-ku, Tokyo
Business outline	Manufacture and sale of epoxy resin adhesives, etc.

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	593	586	597	597	555
Energy consumption intensity (sales revenue)	kL/million yen	0.27	0.30	0.24	0.24	0.30
Energy-related CO <sub>2</sub> emissions	t	1,241	1,207	1,119	1,136	1,124
Waste generation volume	t	114	105	109	97	84
Recycling volume	t	53	49	52	50	27
Recycling rates	%	46	47	48	52	32
Landfill disposal volume	t	12	11	11	9	8
Number of substances reported under PRTR system	Substances	2	1	1	1	1
Releases to air	kg	5	1	2	2	1
Transfers to off-site*	kg	97	37	39	50	31
Number of occupational accidents (in-house lost time)	Accidents	1	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	109	108	109	108	107
Occupational accident frequency rate	–	9.17	0.00	0.00	0.00	0.00
Occupational accident severity rate	–	0.02	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	0	0	0	0
* Due to a revision of the aggregation, the figures for FY2017 and thereafter have been revised.						

<b>Kureha Gohsen Co., Ltd.</b>	
Incorporated	April 1, 1963
Shared capital	120 million yen
Number of employees	127
Head office	1-63 Motomachi, Mibu-machi, Shimotsuga-gun, Tochigi
Business outline	Resin processing & sales (textile fibers, textile products, molded products)

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	889	776	805	830	751
Energy consumption intensity (sales revenue)	kL/million yen	0.20	0.18	0.17	0.14	0.13
Energy-related CO <sub>2</sub> emissions	t	1,651	1,419	1,434	1,483	1,378
Waste generation volume	t	181	217	198	257	197
Recycling volume	t	129	185	151	238	182
Recycling rates	%	71	85	76	93	92
Landfill disposal volume	t	52	33	37	19	21
Number of occupational accidents (in-house lost time)	Accidents	1	0	0	1	1
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	207	198	204	209	224
Occupational accident frequency rate	—	4.84	0.00	0.00	0.00	0.00
Occupational accident severity rate	—	0.03	0.00	0.00	0.04	0.00
Equipment accidents	Accidents	0	0	0	1	0

<b>Kureha Extron Co., Ltd.</b>	
Incorporated	August 19, 1964 (Merged on April 1, 2019)
Shared capital	85 million yen
Number of employees	108
Head office	Head office and factory: 5691, Shishikura, Kasumigaura, Ibaraki
	Tokyo Sales Office: NET Building 5F, 1-23-1 Omori-Kita, Ota-ku, Tokyo
Shared capital	Plastics processing and sales (molded products, anti-static barrier products, films, sheets)

Item	(Before merger with Kureha Extron Co., Ltd.)		(After merger)			
	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	523	877	656	724	747
Energy consumption intensity (sales revenue)	kL/million yen	0.26	0.29	0.23	0.21	0.18
Energy-related CO <sub>2</sub> emissions	t	939	1,550	1,153	1,359	1,410
Waste generation volume	t	35	100	165	135	186
Recycling volume	t	29	37	83	29	44
Recycling rates	%	83	37	50	21	24
Landfill disposal volume	t	4	58	76	77	142
Number of occupational accidents (in-house lost time)	Accidents	0	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	79	183	188	194	188
Occupational accident frequency rate	–	0.00	0.00	0.00	0.00	0.00
Occupational accident severity rate	–	0.00	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	0	0	0	0
Logistics accidents	Accidents	-	0	0	0	0

Item	(Formerly Kureha Extech Co., Ltd.)	
	Unit	FY2018
Energy consumption (crude oil equivalent)	kL	715
Energy consumption intensity (sales revenue)	kL/million yen	0.29
Energy-related CO <sub>2</sub> emissions	t	1,333
Waste generation volume	t	232
Recycling volume	t	202
Recycling rates	%	87
Landfill disposal volume	t	30
Number of occupational accidents (in-house lost time)	Accidents	0
Fatal accidents (in-house)	Accidents	0
Total working hours	1,000 hours	141
Occupational accident frequency rate	–	0.00
Occupational accident severity rate	–	0.00
Equipment accidents	Accidents	0
Logistics accidents	Accidents	0

<b>Kureha Unyu Co., Ltd.</b>	
Incorporated	August 25, 1962
Shared capital	300 million yen
Number of employees	282 (consolidated)
Head office	69, Ochiai, Nishiki-machi, Iwaki, Fukushima
Business outline	Transportation, warehousing, auto maintenance, petroleum and commodities sales

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	164	188	168	171	161
Energy consumption intensity (sales revenue)	kL/million yen	0.02	0.02	0.02	0.02	0.02
Energy-related CO <sub>2</sub> emissions	t	283	333	258	149	258
Waste generation volume	t	76	113	79	60	62
Recycling volume	t	29	55	35	51	55
Recycling rates	%	38	21	44	85	89
Landfill disposal volume	t	47	113	44	9	7
Number of substances reported under PRTR system	Substances	6	6	6	5	6
Releases to air	kg	69	66	62	58	59
Transfers to off-site*	kg	0	0	0	0	0
Number of occupational accidents (in-house lost time)	Accidents	1	3	0	2	3
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	671	644	624	595	577
Occupational accident frequency rate	—	1.49	4.66	0.00	3.36	0.00
Occupational accident severity rate	—	0.00	0.06	0.00	0.15	0.17
Equipment accidents	Accidents	0	0	0	0	0
Logistics accidents	Accidents	23	20	7	22	13
* The above includes data for affiliated companies of Kureha Unyu Co., Ltd.						

<b>Kureha Ecology Management Co., Ltd.</b>	
Incorporated	December 1, 1971
Shared capital	240 million yen
Number of employees	384 (consolidated)
Head office	30, Shitanda, Nishiki-machi, Iwaki, Fukushima
Business outline	Collection, transportation and disposal of waste, environmental engineering business, environmental restoration business

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	2,944	3,422	3,203	3,119	3,769
Energy consumption intensity (sales revenue)	kL/million yen	0.29	0.35	0.27	0.29	0.35
Energy-related CO <sub>2</sub> emissions	t	11,835	12,818	11,533	10,751	12,369
Waste generation volume	t	26,619	25,769	25,926	24,018	21,107
Recycling volume	t	2,207	1,930	1,208	2,030	1,200
Recycling rates	%	8	8	5	8	6
Landfill disposal volume	t	24,412	23,839	24,718	21,988	19,907
Number of substances reported under PRTR system	Substances	31	31	31	31	31
Releases to air (dioxins)	mg-TEQ	49	22	9	17	14
Releases to public water bodies	kg	8,199	6,168	4,247	3,343	3,713
Transfers to off-site (dioxins)	mg-TEQ	9,200	5,500	6,810	6,600	6,200
Number of occupational accidents (in-house lost time)	Accidents	1	1	2	1	1
Fatal accidents (in-house)	Accidents	1	0	0	0	0
Total working hours	1,000 hours	694	714	738	741	721
Occupational accident frequency rate	—	1.44	1.40	2.71	1.35	1.39
Occupational accident severity rate	—	8.88	0.11	0.08	0.02	0.06
Equipment accidents	Accidents	0	0	0	0	0



<b>Kureha Construction Co., Ltd.</b>	
Incorporated	March 10, 1956
Shared capital	370 million yen
Number of employees	244 (consolidated)
Head office	16, Ayanomachi, Nishiki-machi, Iwaki, Fukushima
Business outline	Construction services

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	113	107	118	106	103
Energy consumption intensity (sales revenue)	kL/million yen	0.006	0.005	0.01	0.01	0.01
Energy-related CO <sub>2</sub> emissions	t	196	180	193	160	165
Waste generation volume	t	13,499	14,976	21,127	18,493	17,271
Recycling volume	t	11,061	12,862	19,059	17,193	16,355
Recycling rates	%	82	86	90	93	95
Landfill disposal volume	t	2,438	2,114	2,068	1,300	916
Number of occupational accidents (in-house lost time)	Accidents	2	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	556	533	561	573	567
Occupational accident frequency rate	—	3.60	0.00	0.00	0.00	0.00
Occupational accident severity rate	—	0.00	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	1	0	0	0
- From FY2019 onward, waste generated, recycling volume, recycling rate, and landfill disposal are totals for the Kureha Construction Group.						

<b>Kureha Engineering Co., Ltd.</b>	
Incorporated	October 2, 1972
Shared capital	240 million yen
Number of employees	36
Head office	135, Ochiai, Nishiki-machi, Iwaki, Fukushima
Business outline	Plant engineering & maintenance services

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	72	71	81	82	86
Energy consumption intensity (sales revenue)	kL/million yen	0.03	0.03	0.02	0.02	0.02
Energy-related CO <sub>2</sub> emissions	t	126	125	143	124	138
Waste generation volume	t	314	258	286	785	307
Recycling volume	t	153	126	154	175	92
Recycling rates	%	49	49	54	22	30
Landfill disposal volume	t	38	29	24	16	2
Number of occupational accidents (in-house lost time)	Accidents	0	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	87	87	86	81	84
Occupational accident frequency rate	—	0.00	0.00	0.00	0.00	0.00
Occupational accident severity rate	—	0.00	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	0	0	1	0

<b>Kureha Special Laboratory Co., Ltd.</b>	
Incorporated	November 14, 1990
Shared capital	50 million yen
Number of employees	97
Head office	16, Ochiai, Nishiki-machi, Iwaki, Fukushima
Business outline	Environmental and physiochemical testing and analysis

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	350	353	374	385	382
Energy consumption intensity (sales revenue)	kL/million yen	0.26	0.28	0.31	0.30	0.28
Energy-related CO <sub>2</sub> emissions	t	1,493	1,504	1,490	1,488	1,470
Waste generation volume	t	18	21	21	19	31
Recycling volume	t	3	6	8	6	21
Recycling rates	%	14	29	36	32	67
Landfill disposal volume	t	-	4	3	4	4
Number of occupational accidents (in-house lost time)	Accidents	1	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	187	181	176	172	170
Occupational accident frequency rate	-	0.00	0.00	0.00	0.00	0.00
Occupational accident severity rate	-	0.00	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	0	0	0	0

<b>KREHALON B.V.</b>	
Incorporated	October 1, 1973
Shared capital	2,722 thousand euro
Number of employees	207 (including branch office employees)
Head office	Londenstraat 10, 7418 EE Deventer, The Netherlands
Business outline	Manufacturing food packaging products

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	3,727	3,729	3,217	3,165	3,139
Energy consumption intensity (sales revenue)	kL/million euro	85	85	94	85	76
Energy-related CO <sub>2</sub> emissions	t	2,274	2,384	2,352	2,116	2,050
Waste generation volume	t	1,521	1,539	1,060	1,016	1,124
Recycling volume	t	1,475	308	212	203	1,124
Recycling rates	%	97	20	20	20	100
Landfill disposal volume	t	0	0	0	0	0
Number of occupational accidents (in-house lost time)	Accidents	2	5	1	4	1
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	328	307	292	263	257
Occupational accident frequency rate	–	6.10	16.29	3.42	15.21	3.89
Occupational accident severity rate	–	0.28	1.04	0.07	0.46	0.01
Equipment accidents	Accidents	3	0	0	0	0

<b>Kureha PGA LLC</b>	
Incorporated	April 7, 2008
Shared capital	155,408 thousand US dollars
Number of employees	70 (consolidated)
Head office	901 West DuPont Avenue, Belle, West Virginia 25015 USA
Business outline	PGA resin manufacturing

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	2,714	2,736	2,647	2,294	1,481
Energy consumption intensity (sales revenue)	kL/thousand US dollars	0.078	0.078	0.080	0.075	0.05
Energy-related CO <sub>2</sub> emissions	t	5,880	5,945	5,878	4,783	2,890
Waste generation volume	t	188	291	158	65	22
Recycling volume	t	2	2	1	1	16
Recycling rates	%	48	55	1	2	71
Landfill disposal volume	t	1	79	0	6	6
Number of occupational accidents (in-house lost time)	Accidents	0	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	139	124	123	115	119
Occupational accident frequency rate	–	0.00	0.00	0.00	0.00	0.00
Occupational accident severity rate	–	0.00	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	0	0	1	0

<b>Kureha (Changshu) Fluoropolymers Co., Ltd.</b>	
Incorporated	January 17, 2012
Shared capital	108,000 thousand US dollars
Number of employees	115
Head office	No.2 Haiping Road, Advanced Materials Industrial Park, Changshu, Jiangsu Province, China
Business outline	Production & Sales of PVDF

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	2869	2573	2,696	3,611	3,819
Energy consumption intensity (sales revenue)	kL/million yuan	-	-	-	-	-
Energy-related CO <sub>2</sub> emissions	t	13,447	10,432	10,787	11,791	8,746
Waste generation volume	t	94	116	65	94	100
Recycling volume	t	0	0.8	5	28	25
Recycling rates	%	0	1	8	30	25
Landfill disposal volume	t	0	0	0	0	0
Number of occupational accidents (in-house lost time)	Accidents	0	0	0	1	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	204	205	212	204	252
Occupational accident frequency rate	—	0.00	0.00	0.00	4.90	0.00
Occupational accident severity rate	—	0.00	0.00	0.00	0.01	0.00
Equipment accidents	Accidents	0	0	0	0	0

<b>Kureha (Shanghai) Carbon Fiber Materials Co., Ltd.</b>	
Incorporated	April 30, 2003
Shared capital	12,900 thousand US dollars
Number of employees	56
Head office	No.1585 Xing Rong Road, Jiading, Shanghai, China
Business outline	Production & sales of thermal insulation made from carbon fibers

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	2,449	2,295	2,084	2,325	2,482
Energy consumption intensity (sales revenue)	kL/million yuan	30	33	29	23	22
Energy-related CO <sub>2</sub> emissions	t	5,442	4,766	3,938	4,242	5,535
Waste generation volume	t	154	95	92	93	154
Recycling volume	t	17	12	10	37	77
Recycling rates	%	11	12	11	40	50
Landfill disposal volume	t	20	43	50	49	56
Number of occupational accidents (in-house lost time)	Accidents	2	0	0	1	1
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	115	114	100	104	127
Occupational accident frequency rate	–	17.41	0.00	0.00	9.64	7.86
Occupational accident severity rate	–	0.49	0.00	0.00	0.21	0.02
Equipment accidents	Accidents	0	0	0	1	0
Logistics accidents	Accidents	0	0	1	0	0

<b>Kureha Vietnam Co., Ltd</b>	
Incorporated	January 11, 2008
Shared capital	21,900 thousand US dollars
Number of employees	199
Head office	Plot 227/3, Road 13, Amata l.p., Long Binh Ward, Bien Hoa city, Dong Nai Province Vietnam
Business outline	Production & sales of food packaging films

Item	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	kL	2,978	3,027	2,943	3,068	2,606
Energy consumption intensity (sales revenue)	kL/thousand US dollars	103	106	100	86	72
Energy-related CO <sub>2</sub> emissions	t	6,053	6,133	6,399	6,672	7,146
Waste generation volume	t	817	743	688	783	663
Recycling volume	t	103	94	83	115	124
Recycling rates	%	13	13	12	15	19
Landfill disposal volume	t	714	649	605	668	540
Number of occupational accidents (in-house lost time)	Accidents	1	0	0	0	0
Fatal accidents (in-house)	Accidents	0	0	0	0	0
Total working hours	1,000 hours	509	487	491	443	477
Occupational accident frequency rate	–	1.96	0.00	0.00	0.00	0.00
Occupational accident severity rate	–	0.06	0.00	0.00	0.00	0.00
Equipment accidents	Accidents	0	0	0	0	0
Logistics accidents	Accidents	0	0	0	0	0



● Information on external certification

Company name		Status of international standard certification		
		Environmental Management System	Occupational Safety and Health Management System	Quality Management System
In Japan	Kureha Corporation Iwaki Factory	ISO 14001	ISO 45001	ISO 9001
	Kureha Corporation Plastics Processing Factory	ISO 14001	ISO 45001	ISO 9001
	Kureha Gohsen Co., Ltd.	ISO 14001	ISO 45001	ISO 9001
	Kureha Extron Co., Ltd.	ISO 14001	-	ISO 9001
	Kureha Unyu Co., Ltd.	-	-	ISO 9001
	Kureha Construction Co., Ltd.	ISO 14001	COHSMS	ISO 9001
	Kureha Engineering Co., Ltd.	-	-	-
	Kureha Ecology Management Co., Ltd.	ISO 14001	ISO 45001	ISO 9001
	Kureha Special Laboratory Co., Ltd.	ISO 14001	ISO 45001	ISO 9001
	Resinous Kasei Co., Ltd.	ISO 14001	-	ISO 9001
Overseas	Kureha PGA LLC	-	-	-
	KREHALON B.V.	ISO 14001	-	ISO 9001
	Kureha (Shanghai) Carbon Fiber Materials Co., Ltd.	ISO 14001	ISO 45001	ISO 9001
	Kureha (Changshu) Fluoropolymers Co., Ltd.	ISO 14001	ISO 45001	ISO 9001 IATF 16949
	Kureha Vietnam Co., Ltd.	-	-	ISO 9001
- Please contact us for more information about the scope of our ISO certification.				