

**Release and transfer volume of substances covered by PRTR law from domestic Kuraray plants,
research laboratories and affiliated companies in FY 2022 (Jan.-Dec.)**

1. This table shows the substance used more than one ton in each plant. (Specified Class 1 designated chemical substances are more than 0.5 ton).
2. Unit; metric ton (excepting dioxins; mg-TEQ for dioxins)
3. In this table, the values include affiliated companies in the plant.
Each company submits the official notice; therefore some figures in this table may not be same with the officially notified figures.
4. The official notice is two significant figure. (Unit; kg)

1. Kuraray Co., Ltd.

Okayama Plant (including Kuraray Engineering Co., Ltd., Kuraray Kuraflex Co., Ltd., Kuraray Okayama Spinning Co., Ltd., Kuraray Techno Co., Ltd.)

1-2-1, Kaigan-dori, Minami-ku, Okayama 702-8601, Japan

CAS No	substance	emissions volume				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
75-07-0	acetaldehyde	4.43			4.43				
141-43-5	2-aminoethanol								
60-00-4	ethylenediaminetetraacetic acid								
75-56-9	1,2-epoxypropane								
108-05-4	vinyl acetate (production)	29.42			29.42				
108-05-4	vinyl acetate (consumption)	13.07			13.07	0.95			0.95
124-40-3	dimethylamine	2.00			2.00	0.25			0.25
68-12-2	N,N-dimethylformamide	85.59	1.97		87.56	56.39			56.39
151-21-3	sodium dodecyl sulfate								
108-88-3	toluene	99.77	0.01		99.78	3.59			3.59
*	vanadium compound (vanadium conversion, production)					112.75			112.75
*	vanadium compound (vanadium conversion, consumption)						0.02		0.02
822-06-0	hexamethylene diisocyanate								
*	boron and its compounds		39.97		39.97				
—	poly(oxyethylene) alkyl ether								
9004-82-4	Sodium poly(oxyethylene) dodecyl ether sulfonate								
50-00-0	formaldehyde	0.69			0.69	0.01			0.01
1321-94-4	methylnaphthalene								
101-77-9	4,4'-Methylenedianiline								
101-68-8	methylene-bis-(4,1-phenylene)=di-isocyanate					4.50			4.50
—	dioxins								

Kurashiki Plant (Tamashima area) (including Kuraray Tamashima Co., Ltd., Kuraray Techno Co., Ltd., Kurashiki Research Center.)

7471, Tamashimaotoshima, Kurashiki, Okayama 713-8550, Japan

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
108-05-4	vinyl acetate (consumption)								
127-19-5	N,N-dimethylacetamide					0.80			0.80
68-12-2	N,N-dimethylformamide					2.38			2.38
—	poly(oxyethylene) alkyl ether								
7705-08-0	ferric chloride								
1321-94-4	methylnaphthalene	0.46			0.46				
75-01-4	chloroethylene								
—	dioxins	1.3E-04			1.3E-04	3.3E-05			3.3E-05

Saijo Plant (including Kuraray Saijo Co., Ltd, Kuraray Techno Co., Ltd.)

892, Tsuitachi, Saijo, Ehime 793-8585, Japan

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
75-07-0	acetaldehyde	0.24			0.24				
—	antimony and its compounds								
7705-08-0	ferric chloride								
123-91-1	1,4-dioxane		1.69		1.69	0.08			0.08
100-21-0	terephthalic acid					5.13			5.13
108-95-2	phenol	0.05	0.21		0.26	3.45			3.45
50-00-0	formaldehyde					0.04			0.04
111-30-8	glutaraldehyde								
1321-94-4	methylnaphthalene	0.01			0.01				
—	poly(oxyethylene) alkyl ether	9.0E-04			9.0E-04		0.75		0.75
9004-82-4	poly(oxyethylene) sodium sulfate dodecyl ether						3.12		3.12

* There is no dioxins.

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
141-2-2	n-butyl acrylate	0.42			0.42	28.06			28.06
96-33-3	methyl acrylate	0.35			0.35	0.95			0.95
75-07-0	acetaldehyde	0.31			0.31				
75-86-5	acetone cyanohydrin (production)								
75-86-5	acetone cyanohydrin (consumption)								
78-67-1	2,2'-azodiisobutyronitrile								
149-57-5	2-ethylhexanoate					4.51			4.51
—	xylene								
108-05-4	vinyl acetate	4.23			4.23		9.52		9.52
—	inorganic cyanide compounds (hydrogen cyanide)								
77-73-6	dicyclopentadiene					2.62			2.62
100-42-5	styrene	0.07			0.07	1.35	1.00		2.35
121-44-8	triethylamine					1.25			1.25
108-88-3	toluene	9.19	0.66		9.85	144.29	3.57		147.86
*	lead and its compounds					8.18			8.18
—	nickel compounds								
117-81-7	bis(2-ethylhexyl) phthalate					1.59			1.59
110-54-3	n-hexane	0.47			0.47	11.16			11.16
108-31-6	maleic anhydride								
79-41-4	methacrylic acid (production)	0.03			0.03				
79-41-4	methacrylic acid (consumption)					4.00			4.00
80-62-6	methyl methacrylate (production)	5.73			5.73				
80-62-6	methyl methacrylate (consumption)	36.50			36.50	23.80	3.47		27.28
128-37-0	butylated hydroxytoluene					0.06			0.06
110-00-9	furan								
111-87-5	1-octanol								
67-66-3	chloroform								
98-83-9	α-methylstyrene						1.30		1.30
507-55-1	Dichloropentafluoropropane								
—	Acrylic acid and its aqueous acrylate					1.62			1.62
68-12-2	N,N-dimethylformamide								
—	dioxins								

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
—	zinc compounds (water-soluble)								
78-79-5	isoprene (production)	1.58			1.58	14.98			14.98
78-79-5	isoprene (consumption)	1.09			1.09				
149-57-5	2-ethylhexanoic acid					3.83		4.32	8.15
100-41-4	ethylbenzene	0.29			0.29				
75-21-8	ethylene oxide								
111-87-5	1-octanol	0.29			0.29				
128-37-0	2,6-di-tert-butyl-4-methylphenol								
68-12-2	N,N-dimethylformamide								
100-42-5	styrene	0.15			0.15	2.86			2.86
100-21-0	terephthalic acid								
121-44-8	triethylamine								
108-88-3	toluene	0.25			0.25	17.62			17.62
—	nickel compounds					0.78		7.67	8.45
106-99-0	1,3-butadiene	0.51			0.51				
110-54-3	n-hexane	16.41			16.41	46.28		0.15	46.43
—	poly(oxyethylene) alkyl ether					2.72			2.72
50-00-0	formaldehyde	0.06			0.06	37.55			37.55
108-31-6	maleic anhydride	0.05			0.05	0.04			0.04
101-68-8	methylenebis(4,1-phenylene) diisocyanate								
*	molybdenum and its compounds					0.12			0.12
67-66-3	chloroform								
7705-08-0	ferric chloride					1.71			1.71
—	dioxins	1.8E-01			1.8E-01	2.1E-05			2.1E-05

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
108-88-3	toluene	0.07			0.07				
—	xylene	0.09			0.09				
95-63-6	1,2,4-trimethylbenzene	0.11			0.11				
1321-94-4	methylnaphthalene	0.01			0.01				

* There is no dioxins.

* There is no substances covered by PRTR law.

* There is no dioxins.

2. Domestic Affiliated Companies

Ibuki Plant, Kuraray Plastics Co., Ltd. (including Ibuki Kosan Co., Ltd.)

4330, Osa, Tarui-cho, Fuwa-gun, Gifu 503-2122, Japan

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
97-77-8	Bis(diethylthiocarbamoyl) Disulfide								
108-88-3	toluene								
117-81-7	bis(2-ethylhexyl) phthalate					50.45			50.45
149-30-4	2-Mercaptobenzothiazole								
1321-94-4	methylnaphthalene								

* There is no dioxins.

Maruoka Plant, Kuraray Fastening Co., Ltd.

56, Nouné, Maruoka-cho, Sakai, Fukui 910-0273, Japan

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
108-88-3	toluene	0.10			0.10	0.05			0.05

* There is no dioxins.

Okayama Plant, Kuraray Trading Co., Ltd

1099, Kawabe, Mabi-cho, Kurashiki, Okayama 710-1313, Japan

* There is no substances covered by PRTR law.

* There is no dioxins.