

**Release and transfer volume of substances covered by PRTR law from domestic Kuraray plants,
research laboratories and affiliated companies in FY 2023 (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)
5. The amendment to the Cabinet Order regarding the revision of substances subject to the PRTR law has come into effect on April 1, 2023.
The data below indicates substances after revision.

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	1.55			1.55				
141-43-5	2-aminoethanol								
23238-40-6	alpha-alkyl-omega-(hydroxy)poly(oxyethylene)								
133-51-7	antimony and its compounds								
75-56-9	1,2-epoxypropane								
108-05-4	vinyl acetate (production)	33.23			33.23				
108-05-4	vinyl acetate (consumption)	14.78			14.78	1.04			1.04
124-40-3	dimethylamine	1.92			1.92	0.27			0.27
68-12-2	N,N-dimethylformamide	92.48	1.97		94.45	23.43			23.43
109-99-9	tetrahydrofuran								
151-21-3	sodium dodecyl sulfate								
108-88-3	toluene	46.94	0.01		46.95	3.60			3.60
1293-64-7	vanadium compound (production)					148.67			148.67
74-94-2	boron and its compounds		33.68		33.68				
2136-70-1	poly(oxyethylene) alkyl ether								
9004-82-4	sodium poly(oxyethylene) dodecyl ether sulfonate								
50-00-0	formaldehyde	0.51			0.51	0.02			0.02
101-77-9	4,4'-Methylenedianiline								
101-68-8	methylene-bis-(4,1-phenylene)=di-isocyanate					1.97			1.97

-	dioxins								
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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				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
111-42-2	diethanolamine					1.11			1.11
127-19-5	N,N-dimethylacetamide					0.20			0.20
68-12-2	N,N-dimethylformamide					1.80			1.80
93-82-3	N,N-Bis(2-hydroxyethyl)alkaneamide					2.36			2.36
9004-82-4	sodium poly(oxyethylene) dodecyl ether sulfonate					1.04			1.04
1321-94-4	methylnaphthalene	3.7E-05			3.7E-05				

-	dioxins					5.3E-07			5.3E-07
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Saijo Plant (including Kuraray Saijo Co., Ltd. Kuraray Techno Co., Ltd.)

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

CAS No	substance	emissions volume				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
75-07-0	acetaldehyde	0.13			0.13				
111-86-4	alkane-1-amine						0.39		0.39
111-42-2	diethanolamine						1.95		1.95
123-91-1	1,4-dioxane		1.54		1.54	0.08			0.08
100-21-0	terephthalic acid					4.27			4.27
93-82-3	N,N-Bis(2-hydroxyethyl)alkaneamide						4.14		4.14
108-95-2	phenol	0.07	0.16		0.24	2.74			2.74
2136-70-1	poly(oxyethylene) alkyl ether	1.6E-03			1.6E-03	0.002	0.59		0.59
9004-82-4	sodium poly(oxyethylene) dodecyl ether sulfonate						4.40		4.40
1321-94-4	methylnaphthalene	0.39			0.39				

* There is no dioxins.

Niigata Plant (including Kuraray Noritake Dental Inc., Kuraray Techno Co., Ltd.)

2-28, Kurashiki-cho, Tainai, Niigata 959-2691, Japan

CAS No	substance	emissions volume				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
79-10-7	acrylic acid and its aqueous acrylate					2.65			2.65
141-2-2	n-butyl acrylate	0.37			0.37	15.44			15.44
96-33-3	methyl acrylate	0.26			0.26	0.32	0.23		0.55
75-07-0	acetaldehyde	0.31			0.31				
75-86-5	acetone cyanohydrin (production)								
75-86-5	acetone cyanohydrin (consumption)								
1330-20-7	xylene								
108-05-4	vinyl acetate	3.80			3.80		6.46		6.46
-	inorganic cyanide compounds (hydrogen cyanide)								
77-73-6	dicyclopentadiene					3.27			3.27
128-37-0	2,6-di-tert-butyl-4-methylphenol					0.04			0.04
100-42-5	styrene	0.06			0.06	2.81	0.72		3.53
121-44-8	triethylamine					1.55			1.55
108-88-3	toluene	7.50	0.39		7.89	92.54	4.51		97.05
373-02-4	nickel compounds								
117-81-7	Bis(2-ethylhexyl)phthalate					2.25			2.25
110-54-3	n-hexane	0.43			0.43	15.76			15.76
79-41-4	methacrylic acid (production)	0.03			0.03				
79-41-4	methacrylic acid (consumption)					8.34			8.34
80-62-6	methyl methacrylate (production)	4.90			4.90				
80-62-6	methyl methacrylate (consumption)	30.72			30.72	23.41	7.88		31.28
98-83-9	alpha-methyl styrene						1.78		1.78
111-86-4	Alkane-1-amine	0.11			0.11	0.87			0.87
110-82-7	cyclohexane								
109-99-9	tetrahydrofuran					13.60			13.60
75-74-1	zinc and its compounds					17.05			17.05

-	dioxins								
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Kashima Plant (including Kuraray Techno Co., Ltd.)

36, Towada, Kamisu,Ibaraki 314-0197, Japan

CAS No	substance	emissions volume				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
75-07-0	acetaldehyde								
78-79-5	isoprene (production)	2.86			2.86	14.98			14.98
78-79-5	isoprene (consumption)	1.20			1.20				
100-41-4	ethylbenzene	0.29			0.29				
75-21-8	ethylene oxide					0.52			0.52
111-87-5	1-octanol	0.28			0.28				
110-82-7	cyclohexane	31.80			31.80	43.15			43.15
128-37-0	2,6-di-tert-butyl-4-methylphenol								
68-12-2	N,N-dimethylformamide								
100-42-5	styrene	0.16			0.16	1.80			1.80
109-99-9	tetrahydrofuran	0.08			0.08	79.85			79.85
100-21-0	terephthalic acid								
121-44-8	triethylamine								
108-88-3	toluene	0.24			0.24	0.92			0.92
373-02-4	nickel compounds					4.59		7.67	12.26
106-99-0	1,3-butadiene	0.52			0.52				
110-54-3	n-hexane	11.38			11.38	39.46		0.15	39.61
2136-70-1	poly(oxyethylene) alkyl ether								
50-00-0	formaldehyde	0.06			0.06	36.07			36.07
98-83-9	alpha-methyl styrene								
101-68-8	methylenebis(4,1-phenylene) diisocyanate					14.58			14.58
1309-56-4	molybdenum and its compounds					0.08			0.08

-	dioxins	3.5E-01			3.5E-01				
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Tsurumi Plant (Former Kuraray Chemical Co., Ltd. has been acquired by Kuraray Co., Ltd. since FY2017)

4342, Tsurumi, Bizen, Okayama 705-0025, Japan

CAS No	substance	emissions volume				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
1330-20-7	xylene	0.07			0.07				
95-63-6	trimethylbenzene	0.08			0.08				
108-88-3	toluene	0.05			0.05				
1321-94-4	methylnaphthalene	0.01			0.01				

* There is no dioxins.

Tsukuba Research Center

41, Miyukigaoka, Tsukuba, Ibaraki 305-0841, Japan

- * There is no substances covered by PRTR law.
- * There is no dioxins.

2. Domestic Affiliated Companies

Ibuki Plant, Kuraray Plastics Co., Ltd.

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

CAS No	substance	emissions volume				transfer volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
103-23-1	di(2-ethylhexyl)adipate					0.58			0.58
117-81-7	bis(2-ethylhexyl) phthalate					30.93			30.93

- * There is no dioxins.

Maruoka Plant, Kuraray Fastening Co., Ltd.

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

- * There is no substances covered by PRTR law.
- * There is no dioxins.

Okayama Plant, Kuraray Trading Co., Ltd

1099, Kawabe, Mabi-cho, Kurashiki, Okayama 710-1313, Japan
3098-1, tomiyoshi, kita-ku, Okayama, Okayama 701-1133, Japan

- * There is no substances covered by PRTR law.
- * There is no dioxins.