

**Release and transfer volume of substances covered by PRTR law from domestic Kuraray plants,  
research laboratories and affiliated companies in FY 2020 (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	2.94			2.94				
141-43-5	2-aminoethanol								
60-00-4	ethylenediaminetetraacetic acid								
75-56-9	1,2-epoxypropane								
108-05-4	vinyl acetate (production)	32.74			32.74				
108-05-4	vinyl acetate (consumption)	17.52			17.52	0.91			0.91
124-40-3	dimethylamine	1.76			1.76	0.20			0.20
68-12-2	N,N-dimethylformamide	83.38	1.97		85.35	33.14			33.14
151-21-3	sodium dodecyl sulfate								
108-88-3	toluene	35.74	0.01		35.75	3.92			3.92
*	vanadium compound (vanadium conversion, production)					143.61			143.61
*	vanadium compound (vanadium conversion, consumption)						0.02		0.02
822-06-0	hexamethylene diisocyanate								
*	boron and its compounds		30.48		30.48				
—	poly(oxyethylene) alkyl ether								
9004-82-4	Sodium poly(oxyethylene) dodecyl ether sulfonate								
50-00-0	formaldehyde	0.56			0.56	0.03			0.03
1321-94-4	methylnaphthalene	0.01			0.01				
101-77-9	4,4'-Methylenedianiline								
101-68-8	methylene-bis-(4,1-phenylene)=di-isocyanate					1.27			1.27
—	dioxins	5.92E-04			5.92E-04	9.06E-06			9.06E-06

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)	0.06			0.06	1.13			1.13
127-19-5	N,N-dimethylacetamide								
68-12-2	N,N-dimethylformamide					0.11			0.11
—	poly(oxyethylene) alkyl ether								
7705-08-0	ferric chloride								
1321-94-4	methylnaphthalene	0.14			0.14				
75-01-4	chloroethylene								
—	dioxins	13.69			13.69	196.21			196.21

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	0.26			0.26				
—	antimony and its compounds								
7705-08-0	ferric chloride					0.002			0.002
123-91-1	1,4-dioxane		2.32		2.32	0.07			0.07
100-21-0	terephthalic acid								
108-95-2	phenol	0.05	0.16		0.21	2.57			2.57
50-00-0	formaldehyde					0.01			0.01
111-30-8	glutaraldehyde								
1321-94-4	methylnaphthalene	0.02			0.02				
—	poly(oxyethylene) alkyl ether	7.00E-04			7.00E-04	0.001	0.77		0.78
9004-82-4	poly(oxyethylene) sodium sulfate dodecyl ether						2.60		2.60

\* 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				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
141-2-2	n-butyl acrylate	0.42			0.42	15.78			15.78
96-33-3	methyl acrylate	0.59			0.59	1.01			1.01
75-07-0	acetaldehyde	6.99			6.99				
75-86-5	acetone cyanohydrin (production)								
75-86-5	acetone cyanohydrin (consumption)								
78-67-1	2,2'-azodiisobutyronitrile								
149-57-5	2-ethylhexanoate					6.67			6.67
—	xylene								
108-05-4	vinyl acetate	4.06			4.06		7.03		7.03
—	inorganic cyanide compounds (hydrogen cyanide)								
77-73-6	dicyclopentadiene					1.75			1.75
100-42-5	styrene	0.07			0.07	2.00	0.28		2.28
121-44-8	triethylamine					0.84			0.84
108-88-3	toluene	5.17	0.16		5.33	96.36	5.87		102.23
*	lead and its compounds					12.10			12.10
—	nickel compounds								
117-81-7	bis(2-ethylhexyl) phthalate					2.03			2.03
110-54-3	n-hexane	0.46			0.46	6.70			6.70
108-31-6	maleic anhydride						0.29		0.29
79-41-4	methacrylic acid (production)	0.04			0.04				
79-41-4	methacrylic acid (consumption)					5.92			5.92
80-62-6	methyl methacrylate (production)	2.06			2.06	7.60			7.60
80-62-6	methyl methacrylate (consumption)	43.27			43.27	6.03	11.94		17.97
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						1.20		1.20
—	dioxins								

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

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

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
—	zinc compounds (water-soluble)		0.67		0.67				
78-79-5	isoprene (production)	2.07			2.07			14.04	14.04
78-79-5	isoprene (consumption)	0.59			0.59				
149-57-5	2-ethylhexanoic acid					1.10		2.85	3.95
100-41-4	ethylbenzene	0.28			0.28				
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	0.98			0.98				
100-21-0	terephthalic acid								
121-44-8	triethylamine								
108-88-3	toluene	0.25			0.25	17.05		5.72E-04	17.05
—	nickel compounds					0.22		5.16	5.38
106-99-0	1,3-butadiene	1.16			1.16				
110-54-3	n-hexane	25.94			25.94	0.20		0.15	0.35
—	poly(oxyethylene) alkyl ether							1.44	1.44
50-00-0	formaldehyde	0.10			0.10			31.35	31.35
108-31-6	maleic anhydride							0.06	0.06
101-68-8	methylenebis(4,1-phenylene) diisocyanate								
*	molybdenum and its compounds							0.05	0.05
67-66-3	chloroform							0.03	0.03
—	dioxins	3.65E-02			3.65E-02			2.71E-06	2.71E-06

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				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
108-88-3	toluene	0.18			0.18				
—	xylene	0.08			0.08				
95-63-6	1,2,4-trimethylbenzene	0.09			0.09				
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. (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
117-81-7	bis(2-ethylhexyl) phthalate					46.08			46.08
1321-94-4	methylnaphthalene	0.004			0.004				

\* There is no dioxins.

Maruoka Plant, Kuraray Fastening Co., Ltd.

56, Noune, 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	0.08			0.08	0.04			0.04

\* 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.