

**Release and transfer volume of substances covered by PRTR law from Kuraray plants,
research laboratories and domestic affiliated companies in FY 2012**

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	0.869			0.869				
141-43-5	2-aminoethanol								
-	antimony and its compounds								
60-00-4	ethylenediaminetetraacetic acid								
75-56-9	1,2-epoxypropane								
108-05-4	vinyl acetate	27.553			27.553				
108-05-4	vinyl acetate	36.559			36.559	0.998			0.998
124-40-3	dimethylamine	7.035			7.035				
68-12-2	N,N-dimethylformamide	96.452	1.506		97.958	133.832			133.832
121-44-8	triethylamine								
108-88-3	toluene	105.152	0.020		105.172	3.164			3.164
123-31-9	hydroquinone								
822-06-0	hexamethylene diisocyanate								
-	boron and its compounds		40.392		40.392				
-	poly(oxyethylene) alkyl ether					0.004			0.004
50-00-0	formaldehyde	0.668			0.668	0.000			0.000
1321-94-4	methylnaphthalene	0.027			0.027				
101-77-9	4,4'-methylenedianiline								
101-68-8	methylenebis(4,1-phenylene) diisocyanate					5.310			5.310
-	dioxins	0.015	4.963		4.978				

Kurashiki Plant (Tamashima area) (including Kuraray Tamashima Co., Ltd., Kuraray Medical Inc., Ltd., Kuraray Techno Co., Ltd.)

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

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
5970-45-6	zinc compounds(water-soluble)	0.0638			0.064	1.121			1.121
7705-08-0	ferric chloride								
108-05-4	vinyl acetate								
127-19-5	N,N-dimethylacetamide					0.140			0.140
68-12-2	N,N-dimethylformamide								
100-21-0	terephthalic acid								
-	poly(oxyethylene) alkyl ether		0.114						
1321-94-4	methylnaphthalene	0.0798			0.080				
-	dioxins	11.697	0.001		11.698	21.811			21.811

Kurashiki Plant (Sakazu area) (including Kuraray Medical Inc., Kurashiki Research Center, Kuraray Techno Co., Ltd.)

1621, Sakazu, Kurashiki, Okayama 710-8622, Japan

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
67-66-3	chloroform	0.446			0.446	4.688			4.688
108-88-3	toluene	0.508			0.508	6.684			6.684
110-54-3	n-hexane	0.665			0.665	2.134			2.134
1321-94-4	methylnaphthalene	0.006			0.006				

* There is no dioxins.

Saijo Plant (including Kuraray Saijo Co., Ltd., Kuraray Techno Co., Ltd., Kuraray Kikoh 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	0.473			0.473				
-	antimony and its compounds								
7705-08-0	ferric chloride						0.094		0.094
123-91-1	1,4-dioxane		2.228		2.228	0.105			0.105
100-21-0	terephthalic acid								
108-95-2	phenol	0.082	0.149		0.231	3.216			3.216
50-00-0	formaldehyde								
111-30-8	glutaraldehyde								
1321-94-4	methylnaphthalene	0.010			0.010				

* There is no dioxins.

Niigata Plant (including Kyosei Chemical Co., Ltd., 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
141-32-2	n-butyl acrylate	0.306			0.306	19.349			19.349
96-33-3	methyl acrylate	0.466			0.466		0.243		0.243
75-07-0	acetaldehyde	0.337			0.337				
75-86-5	acetone cyanohydrin (production)								
75-86-5	acetone cyanohydrin (consumption)								
78-67-1	2,2'-azodiisobutyronitrile								
107-18-6	allyl alcohol								
149-57-5	2-ethylhexanoate					7.204			7.204
100-41-4	ethyl benzene	1.165			1.165				
—	xylene	1.747			1.747				
108-05-4	vinyl acetate	4.310			4.310		6.066		6.066
—	inorganic cyanide compounds (hydrogen cyanide)						0.004		0.004
—	inorganic cyanide compounds (sodium cyanide)								
—	inorganic cyanide compounds	0.249	0.031		0.280	0.170			0.170
56-23-5	tetrachloromethane	0.010			0.010				
75-09-2	dichloromethane					2.111			2.111
77-73-6	dicyclopentadiene					0.355			0.355
100-42-5	styrene	0.051			0.051	2.157			2.157
505-32-8	3,7,11,15-tetramethylhexadeca-1-en-3-ol	0.079	0.000		0.080				
121-44-8	triethylamine								
108-88-3	toluene	2.796	0.353		3.149	156.551	45.535		202.086
—	lead and its compounds					13.065			13.065
—	nickel compounds								
117-81-7	bis(2-ethylhexyl) phthalate								
110-54-3	n-hexane	0.568			0.568	5.578			5.578
—	manganese and its compounds		1.320		1.320				
108-31-6	maleic anhydride								
79-41-4	methacrylic acid (production)	0.032			0.032				
79-41-4	methacrylic acid (consumption)					6.390			6.390
80-62-6	methyl methacrylate (production)	4.069			4.069				
80-62-6	methyl methacrylate (consumption)	42.349	0.068		42.417	12.617	2.228		14.845
128-37-0	butylated hydroxytoluene					0.042			0.042
110-00-9	furan								
—	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)		0.309		0.309			0.330	0.330
141-32-2	n-butyl acrylate								
78-79-5	isoprene (production)	2.129			2.129			6.662	6.662
78-79-5	isoprene (consumption)	1.860			1.860				
149-57-5	2-ethylhexanoic acid					1.853		30.895	32.748
100-41-4	ethylbenzene	0.279			0.279			0.279	0.279
75-21-8	ethylene oxide								
111-87-5	1-octanol	0.078			0.078				
98-82-8	cumene	0.724			0.724				
128-37-0	2,6-di-tert-butyl-4-methylphenol								
100-42-5	styrene	0.237			0.237	6.531			6.531
100-21-0	terephthalic acid								
121-44-8	triethylamine								
108-88-3	toluene	0.215			0.215	20.747		0.000	20.748
—	nickel compounds						0.905	2.238	3.143
106-99-0	1,3-butadiene	1.346			1.346				
110-00-9	furan	0.037			0.037			0.037	0.037
110-54-3	n-hexane	16.534			16.534	0.220		0.122	0.342
—	poly(oxyethylene) alkyl ether							8.683	8.683
50-00-0	formaldehyde	0.072			0.072			26.875	26.875
108-31-6	maleic anhydride							0.146	0.146
80-62-6	methyl methacrylate								
98-83-9	α-methylstyrene								
101-68-8	methylenebis(4,1-phenylene) diisocyanate						3.523		3.523
—	molybdenum and its compounds							0.030	0.030
—	dioxins	0.264			0.264			0.000	0.000

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

Tsurumi Plant, Kuraray Chemical Co., Ltd. (including KC Processing Co., Ltd.)

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

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
-	xylene	10.203			10.203				
95-63-6	1,2,4-trimethylbenzene	0.103			0.103				
108-88-3	toluene	0.119			0.119				

* There is no dioxins.

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
108-88-3	toluene	0.6800			0.680				
117-81-7	bis(2-ethylhexyl) phthalate					0.662			0.662
1321-94-4	methylnaphthalene	0.020			0.020				

* 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	2.747			2.747	1.398			1.398

* 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.