

**Release and transfer volume of substances covered by PRTR law from Kuraray plants,  
research laboratories and domestic affiliated companies in FY 2015 (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	0.93			0.93				
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	29.70			29.70				
108-05-4	vinyl acetate	24.36			24.36	1.09			1.09
124-40-3	dimethylamine	5.94			5.94	0.31			0.31
68-12-2	N,N-dimethylformamide	97.07	1.41		98.47	62.28			62.28
151-21-3	sodium dodecyl sulfate								
108-88-3	toluene	84.58	0.01		84.59	2.98			2.98
*	vanadium compound (vanadium conversion)					115.35			
*	vanadium compound (vanadium conversion)						0.03		
822-06-0	hexamethylene diisocyanate								
*	boron and its compounds		46.53		46.53				
-	poly(oxyethylene) alkyl ether								
9004-82-4									
50-00-0	formaldehyde	0.66							
1321-94-4	methylnaphthalene	0.01			0.01				
101-68-8	methylene-bis-(4,1-phenylene)=di-isocyanate					1.06			1.06
-	dioxins	0.21			0.21	0.00			0.00

Kurashiki Plant (Tamashima area) (including Kuraray Tamashima Co., 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
108-05-4	vinyl acetate	0.08			0.08	1.59			1.59
127-19-5	N,N-dimethylacetamide								
68-12-2	N,N-dimethylformamide								
100-21-0	terephthalic acid					0.15			0.15
-	poly(oxyethylene) alkyl ether								
7705-08-0	ferric chloride								
1321-94-4	methylnaphthalene	0.07			0.07				
5970-45-6	zinc acetate (zinc conversion)		0.09		0.09				
-	dioxins	26.62			26.62	115.57			115.57

Kurashiki Plant (Sakazu area) (including Kurashiki Research Center, Kuraray Noritake Dental Inc., 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	0.13			0.13	1.36			1.36
108-88-3	toluene	0.32			0.32	4.22			4.22

\* There is no dioxins.

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	0.47			0.47				
-	antimony and its compounds								
7705-08-0	ferric chloride						0.05		0.05
123-91-1	1,4-dioxane		1.84		1.84	0.05			0.05
100-21-0	terephthalic acid								
108-95-2	phenol	0.09	0.13		0.21	2.05			2.05
50-00-0	formaldehyde					0.03			0.03
111-30-8	glutaraldehyde								
1321-94-4	methylnaphthalene	0.01							
-	poly(oxyethylene) alkyl ether						2.23		2.23

\* 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	0.31			0.31	40.50	7.75		48.25
96-33-3	methyl acrylate	0.45			0.45		0.00		0.00
75-07-0	acetaldehyde	0.34			0.34				
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					5.41	0.35		5.75
100-41-4	ethyl benzene								
-	xylene								
108-05-4	vinyl acetate	4.53			4.53		17.32		17.32
-	inorganic cyanide compounds (hydrogen cyanide)								
-	inorganic cyanide compounds (sodium cyanide)								
-	inorganic cyanide compounds								
56-23-5	tetrachloromethane	0.01			0.01				
75-09-2	dichloromethane								
77-73-6	dicyclopentadiene					3.04			3.04
100-42-5	styrene	0.06			0.06	1.62			1.62
505-32-8	3,7,11,15-tetramethylhexadeca-1-en-3-ol	0.06	0.00		0.06				
121-44-8	triethylamine					1.26			1.26
108-88-3	toluene	8.74	0.97		9.71	217.86	7.20		225.06
*	lead and its compounds					9.80			9.80
-	nickel compounds								
117-81-7	bis(2-ethylhexyl) phthalate								
110-54-3	n-hexane	0.52			0.52	7.91			7.91
-	manganese and its compounds								
108-31-6	maleic anhydride								
79-41-4	methacrylic acid (production)	0.03			0.03				
79-41-4	methacrylic acid (consumption)					4.79			4.79
80-62-6	methyl methacrylate (production)	1.73			1.73				
80-62-6	methyl methacrylate (consumption)	41.48	0.08		41.56	33.85	9.47		43.32
128-37-0	butylated hydroxytoluene					0.11			0.11
110-00-9	furan								
75-05-8	acetonitrile								
111-87-5	1-octanol	0.12							
-	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)		0.32		0.32	0.35		0.35	0.70
141-32-2	n-butyl acrylate								
78-79-5	isoprene (production)	1.65			1.65	14.98		14.98	29.95
78-79-5	isoprene (consumption)	2.33			2.33				
149-57-5	2-ethylhexanoic acid					36.39		36.39	72.78
100-41-4	ethylbenzene	0.28			0.28			0.28	0.28
75-21-8	ethylene oxide								
111-87-5	1-octanol	0.03			0.03				
98-82-8	cumene								
128-37-0	2,6-di-tert-butyl-4-methylphenol								
68-12-2	N,N-dimethylformamide								
100-42-5	styrene	1.17			1.17				
100-21-0	terephthalic acid								
121-44-8	triethylamine								
108-88-3	toluene	0.24			0.24	11.94		0.00	11.94
-	nickel compounds					2.11	1.19	2.11	5.40
106-99-0	1,3-butadiene	2.26			2.26				
110-00-9	furan	0.02			0.02			0.02	0.02
110-54-3	n-hexane	29.38			29.38			0.18	0.35
-	poly(oxyethylene) alkyl ether					4.33		4.33	8.66
50-00-0	formaldehyde	0.08			0.08	27.60		27.60	55.21
108-31-6	maleic anhydride					0.06		0.11	0.17
80-62-6	methyl methacrylate								
98-83-9	α-methylstyrene								
101-68-8	methylenebis(4,1-phenylene) diisocyanate								
-	molybdenum and its compounds								
-	dioxins	0.09			0.09	0.00		0.00	0.00

## Tsukuba Research Center

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

CAS No	substance	emissions volume				transport volume			
		atmosphere	water area	soil	total	waste	recycled	sewage works	total
108-88-3	toluene	0.02			0.02		1.34		1.34

\* There is no dioxins.

## 2. Domestic Affiliated Companies

Tsurumi Plant, Kuraray Chemical 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
108-88-3	toluene	15.77			15.77				
-	xylene	0.08			0.08				
95-63-6	1,2,4-trimethylbenzene	0.09			0.09				
1321-94-4	methylnaphthalene	0.01			0.01				
-	Copper water-soluble salt (copper conversion)								

\* 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
97-77-8		0.24			0.24				
108-88-3	toluene	0.17			0.17				
117-81-7	bis(2-ethylhexyl) phthalate					4.48			4.48
149-30-4		0.01			0.01				
1321-94-4	methylnaphthalene	0.02			0.02				

\* 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	0.97			0.97	0.49			0.49
1321-94-4	methylnaphthalene	0.03			0.03				

\* 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.