

SEIREN GROUP ENVIRONMENTAL DATA 2023

1. Energy Efficiency and Conservation Promotion

■ Yearly Transition of CO2 Emissions at Seiren's Domestic and Overseas Sites (thousand tons-CO2/year)

	2005	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic	256	179	196	207	194	188	177	190	177	164	124	130	127	122	112
Overseas				62	68	66	70	69	83	79	68	81	84	84	99

※ 2030 target for CO2 emissions at Seiren's domestic sites changed to 46% reduction from the 2013 level (168 t → 112 t)

2. Recycling-Oriented Society Creation

■ Organic Solvent Recovery Volume from Waste Resin at Seiren's Domestic Sites (tons/year)

	2005	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic	1,127	1,219	992	826	610	596	567	439	504	459	208	275	206	206	500

※ 2030 target for organic solvent recovery at Seiren's domestic sites changed from 900 t to 500 t through reduction in organic solvent use

■ Yearly Transition of Usage of Regenerated Organic Solvents (4 Types) at Seiren's Domestic Sites (tons/year)

	2005	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic	18	166	169	247	236	333	284	384	333	305	220	364	415	415	400

※ 4 types of regenerated organic solvents referred to above: acetic acid, MEK, IPA and ethyl acetate

■ Yearly Transition of Recycled Waste Volume at Seiren's Domestic Sites (tons/year)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic	3,154	3,271	3,211	3,329	3,365	3,096	3,582	3,768	2,801	2,149	1,516	1,781	2,164	2,112	2,930

3. Environmental Load Reduction

■ Yearly Transition of Total Water Footprint of Production at Seiren's Domestic and Overseas Sites

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic	15,620	15,939	14,853	15,132	14,410	14,865	14,697	14,629	14,505	15,250	13,469	13,687	13,476	13,615	13,813
Overseas	1,710	1,548	1,871	2,171	2,470	1,974	1,935	1,976	2,647	2,447	1,950	2,448	2,037	2,074	2,388

■ Yearly Transition of Total Waste Emissions at Seiren's Domestic and Overseas Sites (tons/year)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic	3,588	3,634	3,971	3,871	4,106	4,403	5,467	5,445	6,106	4,621	3,643	4,245	4,905	4,898	5,162
Overseas						2,333	2,328	2,546	4,524	3,184	2,869	3,613	3,756	3,464	2,931

■ Yearly Transition of Total Emissions and Transfers of PRTR Substances at Seiren's Domestic Sites (tons/year)

	2000	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic alone	759	138	128	122	133	125	113	106	105	48	7	8	7	19	15

※ 2030 target for PRTR substances emissions/transfers changed from 100 t to 30 t through introduction of VOC processor at Nitta Production Site

■ Yearly Transition of VOC Emissions into Atmosphere at Seiren's Domestic Sites (tons/year)

	2000	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (estimated)	2030 (target)
Domestic alone	1,225	479	439	396	374	416	476	537	472	156	32	28	24	24	30

※ 2030 target for VOC emissions into atmosphere changed from 100 t to 30 t through introduction of VOC processor at Nitta Production Site

Seiren Restricted Substances List (Sept. 2023 revised edition)

Group No.	Substance Group
SG01	Aldehydes
SG02	Alkylphenols (APs) and alkylphenoethoxylates (APEOs)
SG03	Amines
SG04	Arylamines
SG05	Asbestos
SG06	Azo compounds which form certain aromatic amines
SG07	Biocides
SG08	Bisphenols
SG09	Chlorinated benzenes and chlorinated toluenes
SG10	Chlorinated phenols
SG11	Colorants
SG12	Dioxins and dioxin-like compounds
SG13	Enzymes
SG14	Flame retardants
SG15	Fluorinated greenhouse gases
SG16	Glycols
SG17	Halogenated biphenyls, halogenated terphenyls, halogenated naphthalenes and halogenated diarylalkanes
SG18	Halogenated compounds not elsewhere classified
SG19	Isocyanates
SG20	Metals
SG21	Monomers
SG22	Nitro polycyclic aromatic hydrocarbons (NPAHs)
SG23	Nitrosoamines
SG24	Organophosphorus compounds not elsewhere classified
SG25	Organotin compounds
SG26	Other chemical substances
SG27	Ozone depleting substances
SG28	Per- and polyfluoroalkyl Substances (PFASs)
SG29	Pesticides
SG30	Phthalates
SG31	Polycyclic aromatic hydrocarbons (PAHs)
SG32	Polymers
SG33	Solvents and volatile organic compounds
SG34	UV Stabilizers
RG01	Chemical Substances Control Law (Japan) : Class I specified chemical substances
RG02	Chemical Substances Control Law (Japan) : Monitoring chemical substances
RG03	Industrial Safety and Health Act (Japan) : Prohibited harmful substances
RG04	PRTR-SDS Law (Japan) : Class I designated chemical substances
RG05	PRTR-SDS Law (Japan) : Class II designated chemical substances
RG06	REACH SVHC
RG07	REACH ANNEX XVII
RG08	California Proposition 65
RG09	GADSL