

【Plant Discharge Data】

Every plant expresses the data numerically and manages it. We consider the environment every day.

**Kariya Region**

(Kariya Plant-Trial Manufacturing Plant-R&D center)

Location / 2-1 Asahi-machi ,Kariya ,Aichi 448-8650 ,Japan

Completion / March .1943

Land Area / 182,000

Floor Space / 164,000

Employees / 3,890

Main Products / Disc brakes ,brake master cylinders, parking brakes, wheel cylinders, etc.

Water Pollution Data

Item	Regulated value	Aisin environmental standard	Measured value	
			Maximum	Average
PH	5.8~8.6	5.8~8.6	7.5	6.6
BOD	25	20	5.8	2.7
COD	25	20	7.6	4.8
SS	30	20	11	3.3
Oil	5	3	0.2	0.1
Total nitrogen	15	15	8.5	4.9
Total phosphorus	2	2	0.13	0.1
Coliform bacteria	3,000	1,000	0	0
Iron	5	2	ND	-
Manganese	5	2	ND	-
Zinc	5	2	0.37	-
Copper	1	0.5	ND	-
All chromium	2	0.4	ND	-
Phenols	5	1	ND	-
Cadmium	ND	ND	ND	-
Cyanide	1	ND	ND	-
Lead	0.08	ND	ND	-
Chromium(VI)	0.05	ND	ND	-

Air Pollution Data

Item	Equipment	Regulated value	Aisin environmental standard	Measured value
NOx	Boiler	180	120	100
	Gas turbine	35	35	21
P.M.	Boiler	0.2	0.2	0.002
	Gas turbine	0.05	0.05	0.002
SOx	Boiler	1.75	1.75	0.12
	Gas turbine	1.75	1.75	0.2

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
Zinc compounds (water-soluble)	1,453	0	48	0	146	242	1,017	0
Organic tin compounds	356	0	4	32	0	0	321	0
Toluene	162	162	0	0	0	0	0	0
Lead and its compounds	755	7	0	0	37	0	711	0
Nickel compounds	433	0	0	0	0	303	130	0
Bis (2-ethylhexyl) phthalate	2,329	2	0	75	110	1	2,141	0
Poly(oxethylene) nonylphenyl ether	748	60	681	3	0	0	0	4
Manganese and its compounds	830	0	0	0	42	249	539	0

**Handa Region**

(Handa Plant-Handa Electronic Plant)

Location / 4-29 Nitto-cho, Handa, Aichi 475-0033, Japan

Completion / April. 1991

Land Area / 325,000

Floor Space / 80,000

Employees / 1,080

Main Products / Electronic control units, sensors, actuators, antilock brake systems, power tilt & telescopically adjustable steering columns, etc.

Water Pollution Data

Item	Regulated value	Aisin environmental standard	Measured value	
			Maximum	Average
PH	6.0~8.0	6.0~8.0	7.5	7.2
BOD	15	10	2.9	1.1
COD	15	10	6	2.6
SS	15	10	1.9	0.6
Oil	2	2	0.3	0.1
Total nitrogen	15	15	13	6.6
Total phosphorus	2	2	ND	ND
Coliform bacteria	3,000	1,000	0	0
Iron	0.5	0.5	ND	ND
Manganese	0.5	0.5	ND	ND
Zinc	5	2	0.19	0.11
Copper	1	0.5	ND	-
All chromium	2	0.4	ND	-
Phenols	0.5	0.5	ND	-
Fluorine	8	2	ND	-
Cadmium	0.1	ND	ND	-
Cyanide	ND	ND	ND	-
Lead	0.1	ND	ND	-
Chromium(VI)	0.05	ND	ND	-

Air Pollution Data

Item	Equipment	Regulated value	Aisin environmental standard	Measured value
NOx	Boiler	150	150	52
	Generator	200	200	150
P.M.	Boiler	0.10	0.10	0.002
	Generator	0.05	0.05	0.002
SOx	Boiler	1.75	1.75	0.006
	Generator	1.75	1.75	0.04

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
Bis(2-ethylhexyl) adipate	395	0	0	0	0	0	395	0
2-Aminoethanol	867	0	0	176	0	484	0	207
Bisphenol A type epoxy resin (liquid)	6,407	0	0	0	0	0	6,407	0
Ethylbenzene	548	548	0	0	0	0	0	0
Xylene	12,524	12,524	0	0	0	0	0	0
Styrene	458	14	0	0	0	0	444	0
Toluene	7,723	7,723	0	0	0	0	0	0
Lead and its compounds	11,780	0	0	0	589	0	11,191	0
Molybdenum and its compounds	189	0	0	0	0	0	189	0

Air Pollution Data:

The following units are used: P.M., g/Nm³, NOx, ppm; SOx, K value; hydrogen chloride, mg/Nm³
The most stringent value prescribed by laws, ordinances, or conventions is rendered as the specified value.
The measurement indicates the maximum value.
If a multiple number of the same type of equipment is used, the equipment given is the one to which the most stringent specified value is applied.

Water Pollution Data:

The following units are used: mg/ (except pH); and count/cm³ for Coliform bacteria only
pH: hydrogen ion concentration; BOD: biochemical oxygen demand; COD: chemical oxygen demand; SS: suspended solids
The most stringent value prescribed by laws, ordinances, or conventions is rendered as the specified value.
"ND" indicates a value that is below the minimum detection limit.

PRTR-Target Substances

Unit: kg/ year
Does not include compounds of which Aisin handles less than 100kg/ year



Anjo Plant

Location / 1-24 Shofukuda, Minowa-cho, Anjo, Aichi 446-8524, Japan
Completion / November. 1961
Land Area / 36,000
Floor Space / 26,000
Employees / 330
Main Products / Beds, sewing machines, embroidery machines, shower-toilet seats, gas engine driven heat-pump air conditioners, supplemental drive unit for artificial human hearts, etc.

Water Pollution Data

Item	Regulated value	Aisin environmental standard	Measured value	
			Maximum	Average
PH	6.5~8.5	6.5~8.5	6.8	6.5
BOD	20	10	2.9	1.3
COD	—	10	5.6	3.9
SS	20	10	2.6	1.2
Oil	4	1	0.2	0.1
Total nitrogen	—	10	1.7	1.4
Total phosphorus	—	2	0.1	0.07
Coliform bacteria	1,000	1,000	0	0
Iron	2	2	ND	ND
Manganese	2	2	ND	ND
Zinc	2	2	0.07	0.05
Copper	0.2	0.2	ND	ND
All chromium	0.2	0.2	ND	ND
Phenols	0.2	0.2	ND	ND
Cadmium	ND	ND	ND	—
Cyanide	ND	ND	ND	—
Lead	0.1	ND	ND	—
Chromium(VI)	0.05	ND	ND	—

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
Antimony and its compounds	29,129	0	0	0	874	0	28,255	0
Ethylene glycol	98,781	0	0	0	0	0	98,781	0
Chlorodifluoromethane (HCFC-22)	14,910	12	0	0	0	64	14,834	0



Shinkawa Plant

Location / 4-75 Rokuken-cho, Hekinan, Aichi 447-0861, Japan
Completion / March. 1945
Land Area / 23,000
Floor Space / 23,000
Employees / 450
Main Products / Door latches, window regulators, sensors, etc.

Water Pollution Data

Item	Regulated value	Aisin environmental standard	Measured value	
			Maximum	Average
PH	5.8~8.6	5.8~8.6	7.1	6.5
BOD	25	20	24	2.8
COD	25	20	19	5.3
SS	30	20	4.4	0.7
Oil	5	3	0.2	0.1
Total nitrogen	40	40	26	12
Total phosphorus	3	3	0.22	0.2
Coliform bacteria	3,000	1,000	0	0
Iron	10	2	ND	ND
Manganese	10	2	ND	ND
Zinc	5	2	0.20	0.12
Copper	1	0.5	ND	ND
All chromium	2	0.4	ND	—
Phenols	5	1	ND	—
Fluorine	8	2	ND	—
Cadmium	0.1	ND	ND	—
Cyanide	1	ND	ND	—
Lead	0.1	ND	ND	—
Chromium(VI)	0.5	ND	ND	—

Air Pollution Data

Item	Equipment	Regulated value	Aisin environmental standard	Measured value
NOx	Boiler	260	180	95
P.M.		0.30	0.20	0.002
SOx		1.75	1.75	0.04

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
Bis(2-ethylhexyl) adipate	144	0	0	0	0	0	144	0
Lead and its compounds	113	0	0	0	6	0	107	0

Cause: The air vent piping for the nitrating tank has gradually been occluded by active sludge buildup, resulting in insufficient air supply and BOD increase.
Countermeasures: Periodically clean the pipe by adding a cleaning function to the air vent piping to keep it from becoming occluded.

Plant Discharge Data



Shintoyo Plant

Location / 1 Tennoh, Takaokashin-machi, Toyota, Aichi 473-0921, Japan
 Completion / August. 1961
 Land Area / 86,000
 Floor Space / 63,000
 Employees / 1,150
 Main Products / Belt moldings, seats, door frames, door hinges, etc.

Air Pollution Data

Item	Equipment	Regulated value	Aisin environmental standard	Measured value
NOx	Boiler	180	150	73
P.M.	Boiler	0.1	0.1	0.005
	Heating furnace	0.2	0.2	0.002
SOx	Boiler	9.0	9.0	0.18

Water Pollution Data

Wastewater processing at the Shintoyo Plant is tendered to another group company occupying the same site.
 As a result there is no individual data for the Shintoyo Plant.

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
2-Aminoethanol	1,652	0	0	0	0	1,640	12	0
N-alkylbenzenesulfonic acid and its salts	588	0	588	0	0	0	0	0
Bisphenol A type epoxy resin(liquid)	217	0	0	3	4	0	211	0
Xylene	2,184	2,184	0	0	0	0	0	0
Styrene	76,186	2,286	0	0	0	0	73,900	0
Toluene	5,354	5,354	0	0	0	0	0	0
Bis(2-ethylhexyl) phthalate	61,587	0	0	2,002	2,925	0	56,660	0
Hydrogen fluoride and its water-soluble salts	2,791	558	84	448	1,701	0	0	0
Boron and its compounds	5,262	0	365	0	4,348	33	0	512
Poly(oxyethylene) nonylphenyl ether	629	0	1	314	0	0	1	313
Molybdenum and its compounds	158	7	1	0	0	0	150	0
Tris (dimethylphenyl) phosphata	4,314	0	0	140	205	0	3,969	0

. (alkyl C=10-14)



Ogawa Plant

Location / 1 Kukui, Ogawa-cho, Anjyo, Aichi 444-1162, Japan
 Completion / December. 1985
 Land Area / 88,000
 Floor Space / 72,000
 Employees / 750
 Main Products / Clutch covers, clutch discs, automatic transmissions, etc.

Water Pollution Data

Item	Regulated value	Aisin environmental standard	Measured value	
			Maximum	Average
PH	6.5~8.5	6.5~8.5	7.2	7.0
BOD	10	10	6	1.9
COD	25	10	8.4	4.7
SS	10	10	3.8	1.1
Oil	2	2	0.2	0.1
Total nitrogen	40	40	18	9.6
Total phosphorus	3	3	1.3	0.4
Coliform bacteria	300	300	0	0
Iron	2	2	ND	ND
Manganese	2	2	ND	ND
Zinc	2	2	0.27	0.19
Copper	0.2	0.2	ND	ND
All chromium	0.2	0.2	ND	-
Phenols	0.2	0.2	ND	-
Fluorine	2	2	ND	-
Cadmium	ND	ND	ND	-
Cyanide	ND	ND	ND	-
Lead	0.1	ND	ND	-
Chromium(VI)	0.05	ND	ND	-

Air Pollution Data

Item	Equipment	Regulated value	Aisin environmental standard	Measured value
NOx	Boiler	150	140	50
	Heating furnace	180	140	34
	Gas turbine	35	35	25
P.M.	Boiler	0.10	0.10	0.002
	Heating furnace	0.20	0.20	0.002
SOx	Gas turbine	0.05	0.05	0.002
	Boiler	3.0	3.0	0.005
	Heating furnace	3.0	3.0	0.03
	Gas turbine	3.0	3.0	0.20

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
Zinc compounds (water-soluble)	1,827	0	274	0	274	0	1,279	0
2-Aminoethanol	4,282	0	0	83	0	4,199	0	0
Xylene	752	752	0	0	0	0	0	0
Nickel compounds	2,364	0	0	0	63	205	2,096	0
Boron and its compounds	974	0	357	176	7	113	0	308
Molybdenum and its compounds	138	0	0	0	0	0	137	1

Air Pollution Data:
The following units are used: P.M., g/Nm³, NOx, ppm;
SOx, K value; hydrogen chloride, mg/Nm³
The most stringent value prescribed by laws, ordinances,
or conventions is rendered as the specified value.
The measurement indicates the maximum value.
If a multiple number of the same type of equipment is used,
the equipment given is the one to which the most stringent
specified value is applied.

Water Pollution Data:
The following units are used: mg/ (except pH); and count/
cm³ for Coliform bacteria only
pH: hydrogen ion concentration; BOD: biochemical oxygen
demand; COD: chemical oxygen demand; SS: suspended solids
The most stringent value prescribed by laws, ordinances, or
conventions is rendered as the specified value.
ND indicates a value that is below the minimum detection limit.

PRTR-Target Substances
Unit: kg / year
Does not include compounds of which
Aisin handles less than 100kg / year



Nishio Region
(Nishio Plant: Nishio Body Component
Plant Machinery & Equipment Plant)

Location / 80 Kowari, Minaminakane-cho, Nishio, Aichi 445-0801 Japan
Completion / March, 1967
Land Area / 253,000
Floor Space / 151,000
Employees / 2,340
Main Products / Pistons, intake manifolds, transmission cases,
oil pumps, water pumps, variable valve timings, etc.

Water Pollution Data

Item	Regulated value	Aisin environmental standard	Measured value	
			Maximum	Average
PH	5.8~8.6	5.8~8.6	7.8	7.1
BOD	10	10	4.9	2.2
COD	10	10	6.6	4.2
SS	10	10	2.5	1.3
Oil	2	2	0.2	0.1
Total nitrogen	15	15	1.4	1
Total phosphorus	2	2	0.5	0.1
Coliform bacteria	300	300	0	0
Iron	3	2	ND	ND
Manganese	3	2	ND	ND
Zinc	1	1	0.14	0.06
Copper	0.5	0.5	0.24	0.07
All chromium	0.1	0.1	ND	-
Phenols	0.5	0.5	ND	-
Fluorine	5	2	ND	-
Cadmium	0.1	ND	ND	-
Cyanide	ND	ND	ND	-
Lead	0.1	ND	ND	-
Chromium(VI)	0.05	ND	ND	-

Air Pollution Data

Item	Equipment	Regulated value	Aisin environmental standard	Measured value
NOx	Boiler	230	150	130
	Aluminum melting furnace	180	150	56
	Heat-treatment furnace	180	150	49
	Waste-material incinerator	150	150	70
P.M.	Generator	35	35	23
	Boiler	0.20	0.20	0.002
	Aluminum melting furnace	0.20	0.20	0.13
	Heat-treatment furnace	0.20	0.20	0.002
	Waste-material incinerator	0.05	0.05	0.005
SOx	Generator	0.05	0.05	0.002
	All facilities	3.0	3.0	0.82
Hydrogen chloride	Waste-material incinerator	150	150	67

PRTR-Target Substances

Substance name	Volume handled	Volume released		Transfer volume	Volume recycled	Volume removed	Volume attached to product	Consumption volume
		Air	Water					
Zinc compounds (water-soluble)	226	0	0	0	226	0	0	0
2-Aminoethanol	110	8	9	0	0	58	18	17
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4,820	0	0	0	0	0	4,820	0
Ethyl benzene	40,561	25,201	0	0	15,360	0	0	0
Ethylene glycol	4,902	245	0	1	0	0	4,656	0
-caprolactam	7,029	0	0	0	0	0	7,029	0
Xylene	44,334	28,974	0	0	15,360	0	0	0
Chromium and chromium (I) compounds	741	0	0	0	700	0	41	0
Chromium(VI) compounds	1,720	0	7	0	700	0	1,013	0
Inorganic cyanide compounds	1,308	0	0	0	0	1,308	0	0
Organic tin compounds	266	0	0	0	0	0	266	0
Hexamethylenetetramine	792	0	0	0	0	0	0	792
Copper salts (water-soluble, except complex salts)	3,266	0	4	0	270	52	2,940	0
1,3,5-trimethyl benzene	203	203	0	0	0	0	0	0
Toluene	76,379	14,746	0	0	61,633	0	0	0
Nickel compounds	8,875	0	0	0	798	1	8,077	0
Hydroquinone	1,145	0	0	0	0	0	0	1,145
Phenol	274	19	0	0	0	0	255	0
Hydrogen fluoride and its water-soluble salts	4,317	351	64	4,650	0	0	0	2,143
Boron and its compounds	417	0	84	13	0	41	142	137
Polyoxyethylene ether	5,119	4,870	8	0	0	75	0	166
Poly(oxylyrene) nonylphenyl ether	401	24	0	189	0	0	0	188
Formaldehyde	668	134	0	0	0	0	0	534
Phthalic anhydride	850	0	0	0	0	0	850	0
Methyl methacrylate	123,470	0	0	0	0	55,561	67,909	0
Molybdenum and its compounds	543	0	0	0	0	0	543	0
Dioxins	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0

(except complex salts and cyanates) (Dioxins: mg-TEQ/year)