

Environmental Data

■ Thailand Musashi Auto Parts Co.,Ltd. (MAP-TH)

Employees : 1,461

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	60,485	Quantity	ton	4,409
Liquefied Petroleum Gas (LPG)	ton	578			

■ Indonesia P.T. Musashi Auto Parts Indonesia (MAP-IN)

Employees : 2,047

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	64,716	Quantity	ton	101
Diesel	kℓ	90			
Gasoline	kℓ	81			
Natural Gas	1,000Nm ³	614			
Liquefied Petroleum Gas (LPG)	ton	292			

■ India Musashi Auto Parts India Private Ltd. (MAP-ID)

Employees : 2,802

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	44,534	Quantity	ton	2,434
Type-A Heavy Oil	kℓ	4,168			
Diesel	kℓ	1,040			
Liquefied Petroleum Gas (LPG)	ton	944			

■ Vietnam Musashi Auto Parts Vietnam Co.,Ltd. (MAP-VN)

Employees : 404

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	10,123	Quantity	ton	474
Liquefied Petroleum Gas (LPG)	ton	71			

■ China Musashi Auto Parts (Zhongshan) Co.,Ltd. (MAP-CH)

Employees : 1,116

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	26,316	Quantity	ton	460
Diesel	kℓ	0			
Liquefied Petroleum Gas (LPG)	ton	78			
City Gas	1,000Nm ³	568			

■ US, Michigan Musashi Auto Parts Michigan Incorporated (MAP-MI)

Employees : 641

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	44,094	Quantity	ton	806
Natural Gas	1,000Nm ³	2,904			

■ Canada Musashi Auto Parts Canada Incorporated (MAP-CA)

Employees : 586

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	27,666	Quantity	ton	1,204
Natural Gas	1,000Nm ³	841			

■ Brazil, Pernambuco Musashi Do Brasil Ltda. (MSB)

Employees : 799

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	25,051	Quantity	ton	3,257
Diesel	kl	5			
Natural Gas	1,000Nm ³	359			
Liquefied Petroleum Gas (LPG)	ton	18			

■ Brazil, Amazonia Musashi Da Amazonia Ltda. (MDA)

Employees : 542

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	14,131	Quantity	ton	836
Diesel	kl	3			
Liquefied Petroleum Gas (LPG)	ton	243			

■ Hungary Musashi Hungary Manufacturing, Limited (MHM)

Employees : 210

<Energy Consumption>			<Waste Generated>		
Items	Unit	Results	Items	Unit	Results
Electricity	MWh	6,310	Quantity	ton	1,027
Natural Gas	1,000Nm ³	55			

Environmental Data

■ Ueta Plant

Employees : 774 人 (at March 2016)

<Energy · Water Consumption>

No.	Items	Unit	Results
1	Electricity	MWh	13,963
2	Kerosene	kℓ	125
3	Liquefied Petroleum Gas (LPG)	ton	449
4	Water	m ³	51,545

<Water Quality>

Date : May 21, 2015

No.	Control Items	Unit	Regulation Value*	Measured Value
1	pH(hydrogen ion concentration)	-	5.8~8.6	6.9
2	BOD(biological oxygen demand)	mg/ℓ	25(20)	4.7
3	COD(chemical oxygen demand)	mg/ℓ	25(20)	9.0
4	Nitrogen Content	mg/ℓ	120(60)	7.1
5	Phosphorus Content	mg/ℓ	16(8)	1.2
6	SS(suspended solids)	mg/ℓ	30(20)	1

<Air>

Date : Dec. 16, 2015

No.	Control Items	Object Facility	Unit	Regulation Value	Measured Value
1	Dust	Heater, West Plant	g/Nm ³	0.30	<0.004
		Heater, South Plant	g/Nm ³	0.30	0.0031
2	Sulfur Oxide	Heater, West Plant	Nm ³ /h	1.8	<0.003
		Heater, South Plant	Nm ³ /h	0.87	<0.003
3	Nitrogen Oxide	Heater, West Plant	ppm	180	34
		Heater, South Plant	ppm	180	38

<Waste>

No.	Items	Unit	Results
1	Amount	ton	404
2	Amount Sent Directly to Landfills	ton	0

*Self-imposed standards except BOD, bracket () shows daily average effluent standard

■ Akemi Plant #1

Employees : 144 (at March 2016)

<Energy · Water Consumption>

No.	Items	Unit	Results
1	Electricity	MWh	9,236
2	Kerosene	kℓ	96
3	Liquefied Petroleum Gas (LPG)	ton	31
4	Water	m ³	17,950

<Water Quality>

Date : March 3, 2016

No.	Control Items	Unit	Regulation Value*	Measured Value
1	pH(hydrogen ion concentration)	-	6.0~8.5	7.1
2	BOD(biological oxygen demand)	mg/ℓ	10	1.3
3	COD(chemical oxygen demand)	mg/ℓ	10	2.4
4	Nitrogen Content	mg/ℓ	20	5.9
5	Phosphorus Content	mg/ℓ	2	0.20
6	SS(suspended solids)	mg/ℓ	10	2

<Air>

Date : Feb. 1, 2016

No.	Control Items	Object Facility	Unit	Regulation Value	Measured Value
1	Dust	Heater, Plant #1	g/Nm ³	0.10	<0.003
		Heater, Plant #2	g/Nm ³	0.10	<0.003
		Heater, Plant #3	g/Nm ³	0.10	0.0043
2	Sulfur Oxide	Heater, Plant #1	Nm ³ /h	0.053	<0.0009
		Heater, Plant #2	Nm ³ /h	0.053	<0.0009
		Heater, Plant #3	Nm ³ /h	0.28	<0.002
3	Nitrogen Oxide	Heater, Plant #1	ppm	150	38
		Heater, Plant #2	ppm	150	42
		Heater, Plant #3	ppm	150	32

<Waste>

No.	Items	Unit	Results
1	Amount	ton	159
2	Amount Sent Directly to Landfills	ton	0

■ Akemi Plant #2

Employees : 188 (at March 2016)

<Energy · Water Consumption>

No.	Items	Unit	Results
1	Electricity	MWh	14,493
2	City Gas	1,000Nm ³	361
3	Liquefied Petroleum Gas (LPG)	ton	8
4	Water	m ³	15,699

<Water Quality>

Date : June. 24, 2015

No.	Control Items	Unit	Regulation Value*	Measured Value
1	pH(hydrogen ion concentration)	-	6.0~8.5	6.7
2	BOD(biological oxygen demand)	mg/ℓ	20	1.3
3	COD(chemical oxygen demand)	mg/ℓ	20	4.7
4	Nitrogen Content	mg/ℓ	20	5.3
5	Phosphorus Content	mg/ℓ	2	1.0
6	SS(suspended solids)	mg/ℓ	30	<5

<Air>

Date : Feb. 8, 2016

No.	Control Items	Object Facility	Unit	Regulation Value	Measured Value
1	Dust	Normalizing Furnace	g/Nm ³	0.10	<0.002
2	Sulfur Oxide	Normalizing Furnace	Nm ³ /h	0.014	<0.002
3	Nitrogen Oxide	Normalizing Furnace	ppm	150	4

<Waste>

No.	Items	Unit	Results
1	Amount	ton	344
2	Amount Sent Directly to Landfills	ton	0

*Self-imposed standards except BOD, bracket () shows daily average effluent standard

■ Horai Plant

Employees : 90 (at March 2016)

<Energy · Water Consumption>

No.	Items	Unit	Results
1	Electricity	MWh	6,957
2	Kerosene	kℓ	82
3	Water	m ³	6,039

<Air>

Date : Dec. 7, 2015

No.	Control Items	Object Facility	Unit	Regulation Value	Measured Value
1	Dust	Heater	g/Nm ³	0.30	<0.003
2	Sulfur Oxide	Heater	Nm ³ /h	1.7	<0.002
3	Nitrogen Oxide	Heater	ppm	180	43

<Water Quality>

Date : Feb. 10, 2016

No.	Control Items	Unit	Regulation Value*	Measured Value
1	pH(hydrogen ion concentration)	-	5.8~8.6	7.6
2	BOD(biological oxygen demand)	mg/ℓ	20	20
3	COD(chemical oxygen demand)	mg/ℓ	160(120)	25
4	Nitrogen Content	mg/ℓ	120(60)	50
5	Phosphorus Content	mg/ℓ	16(8)	4.6
6	SS(suspended solids)	mg/ℓ	200(150)	6

<Waste>

No.	Items	Unit	Results
1	Amount	ton	407
2	Amount Sent Directly to Landfills	ton	0

*Self-imposed standards except BOD, bracket () shows daily average effluent standard

■ Suzuka Plant

Employees : 13 (at March 2016)

<Energy · Water Consumption>

No.	Items	Unit	Results
1	Electricity	MWh	71
2	Water	m ³	177

<Air>

No.	Control Items	Object Facility	Unit	Regulation Value	Measured Value
Not Applicable					

<Water Quality>

Date : Aug. 27, 2014

No.	Control Items	Unit	Regulation Value*	Measured Value
1	pH(hydrogen ion concentration)	-	5.8~8.6	6.2
2	BOD(biological oxygen demand)	mg/ℓ	20	12
3	COD(chemical oxygen demand)	mg/ℓ	160(120)	32
4	Nitrogen Content	mg/ℓ	120(60)	94
5	Phosphorus Content	mg/ℓ	16(8)	9.4
6	SS(suspended solids)	mg/ℓ	200(150)	5

<Waste>

No.	Items	Unit	Results
1	Amount	ton	15
2	Amount Sent Directly to Landfills	ton	0

*Self-imposed standards except BOD, bracket () shows daily average effluent standard

■ Kyushu Musashi Seimitsu

Employees : 699 (at March 2016)

<Energy · Water Consumption>

No.	Items	Unit	Results
1	Electricity	MWh	30,518
2	Kerosene	kℓ	2
3	Type-A Heavy Oil	kℓ	119
4	Gasoline	kℓ	20
5	Liquefied Petroleum Gas (LPG)	ton	726
6	Water	m ³	205,804

<Air>

Date : Aug. 19, 2014

No.	Control Items	Object Facility	Unit	Regulation Value*	Measured Value
1	Dust	Private Generator	g/Nm ³	0.1	0.02
2	Sulfur Oxide	Private Generator	Nm ³ /h	3.23	0.79
3	Nitrogen Oxide	Private Generator	ppm	950	650

<Waste>

No.	Items	Unit	Results
1	Amount	ton	581
2	Amount Sent Directly to Landfills	ton	0

*Self-imposed standards except BOD, bracket () shows daily average effluent standard