

Company Data (Environment and Safety)

Mitsubishi Chemical Group Companies Promoting Responsible Care Activities

As of March 2018

Petrochemicals Business Domain

Japan Polychem
Japan Polypropylene
Japan Polyethylene
Mitsubishi Chemical Indonesia

Carbon Business Domain

Kansai Coke and Chemicals

MMA Business Domain

Mitsubishi Chemical Lucite Group
Huizhou MMA
Suzhou Sanyouli Chemicals
MCC Unitec
Thai MMA
Mitsubishi Chemical Polymer Nantong
Suzhou MRC Opto-Device
Diatec
Ryoko
Acry Sunday
Diapolyacrylate

Advanced Polymers Business Domain

Mitsubishi Chemical Performance Polymers Europe
Mitsubishi Chemical Performance Polymers
Mitsubishi Chemical Performance Polymers (China)
Japan Unipet
RHOMBIC

High Performance Chemicals Business Domain

DIACHEM RESINS INDONESIA
Toei Kasei
Dianal America
Japan Coating Resin
Mitsubishi Chemical Analytech
ARKEMA Yoshitomi
Mitsubishi-Chemical Foods
Nippon Kasei Chemical

Information, Electronics & Display Business Domain

MC PET FILM INDONESIA
Mitsubishi Polyester Film Suzhou
Mitsubishi Chemical Converting Film Wuxi
Tai Young High Tech
Mitsubishi Chemical Infonics
Shinryo
Mitsubishi Chemical Media
The Nippon Synthetic Chemical Industry

High Performance Films Business Domain

J-Film
Tai-Young Film
DiaPlus Film
Mitsubishi Polyester Film (U.S.A.)
Mitsubishi Polyester Film (Germany)

Environment & Living Solutions Business Domain

Dalian Rayon Environmental Equipment
Wuxi Rayon Membrane Technology
Fengxin JDL Environment Protection
Mitsubishi Chemical Aqua Solutions
MCC KODA
Mitsubishi Chemical Cleansui
Wellthy
Resindion
Tai Young Chemical
Mitsubishi Chemical Agri Dream
Mikado Chemical M.F.G.
Mitsubishi Chemical Infratec
Astro
DIATEX

Advanced Moldings & Composites Business Domain

Quadrant
Toyama Filter Tow
Tosen
Ryoko Sizing
TK Industries
Mitsubishi Chemical Carbon Fiber and Composites (U.S.A.)
Challenge
MCC Composite Products
Aldila
Wethje Carbon Composites
Wethje Immobilien
ALPOLIC
Mitsubishi Chemical Composites America
Ryobi Techno
Shanghai Baoling Plastics
Yuka Denshi
Dia Molding

New Energy Business Domain

MC Ionic Solutions UK
MC Ionic Solutions US
Qingdao Anode Kasei

Corporate Domain

Mitsubishi Chemical Logistics
Mitsubishi Chemical Engineering Corporation
Ryouei
MRM Otake
MRM Toyohashi
MRM Toyama
Ryoko Tekunika
Hokuryo Mold
Mitsubishi Chemical High-Technica

Company Data (Environment and Safety)

Safety Data

Data for years prior to and including fiscal 2016 are the sums of the figures for the previous Mitsubishi Chemical, Mitsubishi Plastics, Mitsubishi Rayon and their respective domestic group companies before the formation of the current Mitsubishi Chemical.

Mitsubishi Chemical Group Process Safety Incidents in Japan

Classification	FY2013	FY2014	FY2015	FY2016	FY2017
Incidents	15	14	12	16	36
Serious incidents	1	0	0	0	0

Mitsubishi Chemical Group Occupational Accidents in Japan

Classification	FY2013	FY2014	FY2015	FY2016	FY2017
Non-lost-time accidents	72	53	45	50	61
Lost-time accidents	5	4	7	5	0
Serious accidents	15	11	20	11	12

Mitsubishi Chemical Group Lost-Time Accidents by Classification

Classification	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Cuts	2	1	1	6	1	11
Being caught and entangled in equipment	10	10	10	9	14	53
Falls on level surfaces	8	7	10	9	8	42
Chemical burns and toxicosis	2	2	3	6	2	15
Contact with high/low temperatures	2	1	3	2		8
Reaction to motion/improper motion	4		1			5
Collisions	2		3		5	10
Falls from high places	5	3	3	4	8	23
Struck by flying/falling objects		1	3	1		5
Others	1	1	2	2	4	10

Environmental Data

Data for years prior to and including fiscal 2016 are the sums of the figures for the previous Mitsubishi Chemical, Mitsubishi Plastics, Mitsubishi Rayon and their respective domestic group companies before the formation of the current Mitsubishi Chemical.

Mitsubishi Chemical Group Emissions of Pollutants into the Atmosphere and Water Systems (t)

Pollutant	FY2013	FY2014	FY2015	FY2016	FY2017
NO _x	9,900	8,800	8,000	8,200	7,300
SO _x	3,200	3,000	3,100	2,900	2,900
BOD	120	110	100	100	250
COD	1,900	1,700	1,700	1,700	1,700
Dust	210	200	200	180	170
Total phosphorus	70	60	50	60	50
Total nitrogen	5,700	5,700	5,500	5,700	5,800
VOCs ¹	4,500	5,500	4,800	4,300	4,900

¹ Includes PRTR-regulated substances.

Mitsubishi Chemical Group Water Intake and Discharge Volumes (km³)

Type	FY2013	FY2014	FY2015	FY2016	FY2017
Intake	Tap water	30,500	29,300	28,400	31,300
	Groundwater	26,500	24,200	22,300	23,200
	Industrial water	115,600	109,800	102,000	97,800
	Seawater	517,700	473,100	457,800	463,100
Discharge	Oceans	577,100	522,400	493,900	495,100
	Streams and wetlands	46,400	42,300	51,200	48,300
	Sewerage	3,900	3,300	3,500	3,600

ISO 14001 Certified Mitsubishi Chemical Plants

Plant	Certification body	Registration date	Plant	Certification body	Registration date
Otake Plant	LRQA ¹	March 2016	Mizushima Plant	JCQA	March 2000
Kurosaki Plant	JQA ²	July 2000	Kashima Plant	JCQA	March 2001
Nagahama and Azai Plants	JQA	December 1999	Sakaide Plant	LRQA	December 2000
Yokkaichi Plant	JCQA ³	July 1999	Tsukuba Plant	JCQA	February 2000
Toyama Plant	LRQA	July 2016	Santo Plant	JCQA	December 2001
Hiratsuka Plant	JQA	March 2000	Tsurumi Plant	LRQA	October 2016
Toyohashi Plant	LRQA	July 2016	Ueda Plant	JCQA	October 2003

¹ LRQA: Lloyd's Register Quality Assurance Limited

² JQA: Japan Quality Assurance Organization

³ JCQA: Japan Chemical Quality Assurance Ltd.

As of March 31, 2018