

# **MGC Group Data Book 2013**

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MITSUBISHI GAS CHEMICAL (	COMPANY, INC.	

### CORPORATE INFORMATION

### Company Name

MITSUBISHI GAS CHEMICAL COMPANY, INC.

# Corporate Logo

Address Mitsubishi Building, 5-2 Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8324, Japan

### Original Establishment

January 15, 1918

#### Incorporation

April 21, 1951

¥41.97 billion (as of end of March, 2013)

Fiscal Year

#### Number of Consolidated Subsidiaries and Affiliates

Consolidated subsidiaries: 41 Affiliates: 14 (as of end of March, 2013)

### Number of Employees

Non-consolidated: 2,399 Consolidated: 5,323 (as of end of March, 2013)

### Main Banks

The Bank of Tokyo-Mitsubishi UFJ, Ltd. Mitsubishi UFJ Trust and Banking Corporation The Norinchukin Bank Mizuho Corporate Bank, Ltd. The Bank of Yokohama, Ltd.

### Main Operations

1) Manufacturing and sales of the following products:

- Organic and inorganic chemicals, petroleum-derived chemicals
- Chemical fertilizers, agricultural chemicals, feeds, feed additives
- Synthetic resins, synthetic rubber and other high-molecular polymers
- Dyes, pigments, paints and adhesives
- Pharmaceutical products, quasi-drugs, biochemical products, food and food additives
- Detergents, bleaches, gas absorbers
- Materials and elements used for civil engineering, construction, agriculture and fisheries, distribution industry and electric appliances and equipment
- Ceramic products
- Information device, component, apparatus
- All other products related to the aforementioned materials and products
- 2) Mining and sales of natural gas, petroleum and other minerals and offering consultations on related matters
- Development, sales and consultations related to geothermal energy and other forms of energy
- Design, manufacture, sales, operation, supervision and consulting of various machinery used in chemical industries and environmental preservation
- 5) Research and development, sales, commissioned research and consulting related to various technologies relevant to chemical industries
- 6) Conducting various tests and commissioned analyses and consultation related to environmental measurements and safety of chemical products
- 7) Design, implementation, contracting and supervision of civil engineering work and various other construction assignments
- 8) Sales, leasing, management and brokerage of real estate properties
- 9) Shipping, freight transportation, warehouse operation and tourist operations
- 10) All other business operations relevant to the aforementioned operations

### **Executives**

Representative Director, Chairman Kazuo Sakai

Representative Director, President Toshikiyo Kurai

Representative Directors, Senior Managing Executive Officers Masami Orisaku In charge of Compliance, Chairman of Internal Control Promotion Committee, In charge of Internal Audit Division and Corporate Planning Division

Takayuki Watanabe Chairman of The Committee on Future R&D, In charge of Research & Development Division, Production Technology Division and Environment & Safety Division

Directors, Managing Executive Officers Yukio Sakai President of Natural Gas Chemicals Company

Katsuhiko Sugita In charge of Risk Management, In charge of Administrative & Personnel Center and Purchasing & Logistics Center

Yoshihiro Yamane President of Aromatic Chemicals Company

Kunio Kawa In charge of Finance & Accounting Center, In charge of Corporate Communications Division, Deputy In charge of Corporate Planning Division

Katsushige Hayashi President of Specialty Chemicals Company, General Manager, Engineering Plastics Division, Specialty Chemicals Company

Masahiro Johno President of Information & Advanced Materials Company

Outside Director Yoshimasa Nihei

Executive Officers Osamu Kondo

General Manager, Tokyo Techno Park **Shuichi Murai** General Manager, Basic Chemicals Division, Natural Gas Chemicals Company

Kenji Inamasa Plant Manager, Mizushima Plant, Aromatic Chemicals Company

Takafumi Abe General Manager, Planning & Development Division, Natural Gas Chemicals Company

Susumu Yoshida General Manager, Corporate Planning Division

Motoyoshi Onobori Plant Manager, Yokkaichi Plant, Specialty Chemicals Company

Yasuhiro Sato General Manager, Finance & Accounting Center

Tsuneaki Iwakiri Plant Manager, Kashima Plant, Specialty Chemicals Company

Masashi Fujii General Manager, Organic Chemicals Division, Natural Gas Chemicals Company

Takuji Shitara Deputy In charge of Production Technology Division and Environment & Safety Division, General Manager, Research & Development Division, General Manager, MGC Chemical Analysis Center

Chiharu Kubota

MGC ELECTROTECHNO (THAILAND) CO., LTD. CEO

#### Masamichi Mizukami

Plant Manager, Yamakita Plant, Specialty Chemicals Company

Executive General Manager Akira Ishiwada

BRUNEI METHANOL COMPANY SDN. BHD. CEO

Audit & Supervisory Board Members Kuniaki Kawakami Audit & Supervisory Board Member (Full-time)

Hiroshi Shibata

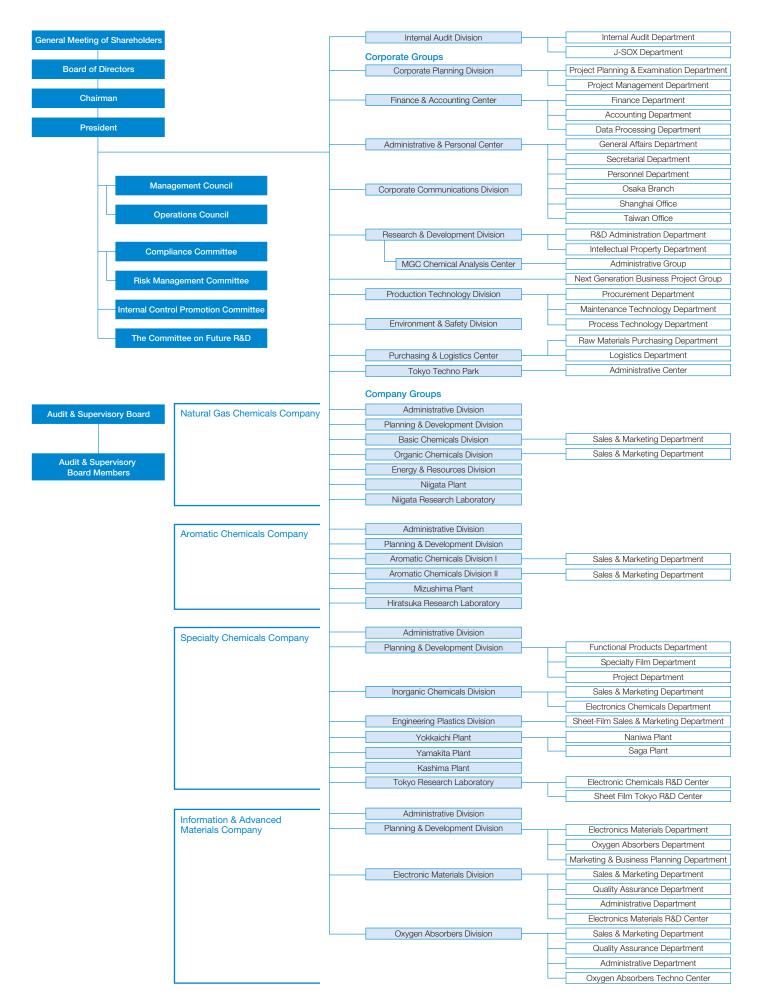
Outside Audit & Supervisory Board Member (Full-time)

Kunio Oya Audit & Supervisory Board Member (Full-time)

Yasuomi Matsuyama

Outside Audit & Supervisory Board Member (Part-time)

### **ORGANIZATION CHART**



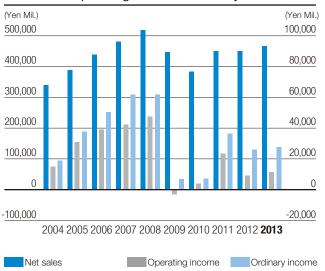
### FINANCIAL HIGHLIGHTS

Mitsubishi Gas Chemical Company, Inc. and Consolidated Subsidiaries

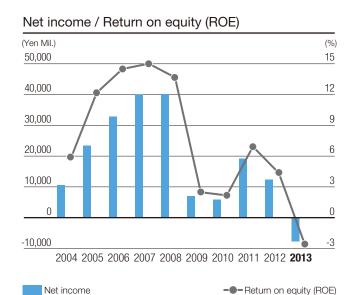
	Mar. 2004	Mar. 2005	Mar. 2006
Net sales (Millions of yen)	340,710	388,589	439,829
Operating income (Millions of yen)	14,934	30,868	38,970
Ordinary income (Millions of yen) (Note 1)	18,879	37,726	50,410
Net income (Millions of yen)	10,622	23,348	32,944
Equity in earnings of affiliates (Millions of yen)	9,156	11,834	15,122
Total assets (Millions of yen)	475,116	494,577	564,483
Net assets (Millions of yen) (Note 2)	180,523	203,306	251,202
Operating activity cash flow (Millions of yen)	19,732	29,119	36,055
Investing activity cash flow (Millions of yen)	(8,039)	(15,629)	(15,195)
Financing activity cash flow (Millions of yen)	(14,305)	(16,536)	(9,924)
Total cash and cash equivalents at end of year (Millions of yen)	30,418	28,696	40,590
Basic net income per share (Yen)	22.91	50.41	70.98
Diluted net income per share (Yen)	_	_	_
Net assets per share (Yen)	390.23	439.60	543.12
Return on equity (ROE) (%) <sup>(Note 3)</sup>	5.9	12.2	14.5
Return on assets (ROA) (%) (Note 4)	4.0	7.8	9.5
Operating income margin (%)	5.5	9.7	8.9
Equity ratio (%) (Note 3)	38.0	41.1	44.5
Number of employees	4,537	4,426	4,466

Notes : 1. Ordinary income, a common indicator in Japan, corresponds to income before income taxes and minority interests, less any extraordinary profit or loss. 2. Effective from the fiscal year ended March 2007, total net assets include deferred gains (losses) on hedges, share purchase warrants and minority interests in

accordance with revisions to the relevant accounting standard.



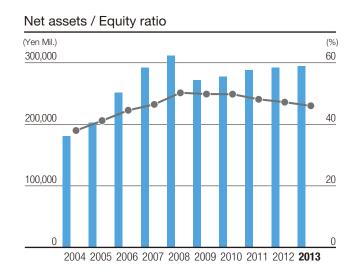
#### Net sales / Operating income / Ordinary income



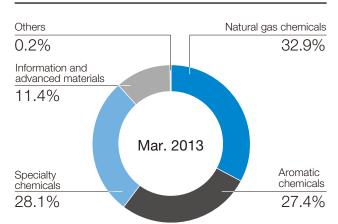
Mar. 2013	Mar. 2012	Mar. 2011	Mar. 2010	Mar. 2009	Mar. 2008	Mar. 2007
467,979	452,217	451,033	384,528	447,647	519,329	482,608
11,421	9,083	23,363	4,090	(3,103)	47,366	42,220
27,651	26,116	36,394	7,365	6,975	61,759	61,723
(7,793)	12,327	18,950	5,827	7,014	40,209	40,044
19,045	20,532	17,873	8,794	14,706	21,312	23,200
613,908	595,250	577,045	539,431	530,592	601,386	609,965
294,895	292,111	288,257	278,094	272,083	312,021	292,696
31,169	37,348	39,773	31,326	49,027	40,394	21,797
(30,818)	(37,274)	(24,626)	(33,662)	(41,253)	(20,907)	(14,039)
(14,356)	(9,876)	(1,849)	(15,354)	11,541	(22,251)	(8,819)
26,907	35,701	46,768	36,048	53,065	37,235	41,266
(17.25)	27.28	41.92	12.89	15.30	87.01	86.63
-	27.01	41.00	12.61	14.97	85.13	85.64
628.40	623.46	615.25	595.56	585.90	654.25	613.64
(2.8)	4.4	6.9	2.2	2.5	13.7	15.0
4.6	4.5	6.5	1.4	1.2	10.2	10.5
2.4	2.0	5.2	1.1	(0.7)	9.1	8.7
46.2	47.3	48.2	49.9	49.9	50.3	46.5
5,323	5,216	4,979	4,920	4,902	4,686	4,561

3. Up to the fiscal year ended March 2006, total net assets were used as equity as the basis of calculations. Effective from the fiscal year ended March 2007, total net assets include deferred gains (losses) on hedges, share purchase warrants, and minority interests in accordance with the revised accounting standard. With respect to equity, however, share purchase warrants and minority interests are deducted from total net assets in calculation of equity ratio.

4. Return on assets = Ordinary income / Average total assets



#### Sales by segment



## CORPORATE HISTORY

Year	Hist	tory
1910- 1940	<ul> <li>Mitsubishi Edogawa Chemical Co., Ltd.</li> <li>1918 Edogawa Barium Industry Co., Ltd. is established. The company later becomes Mitsubishi Edogawa Chemical. The plant later becomes Mitsubishi Gas Chemical's Tokyo Plant.</li> <li>1927 Begins production of formalin for the first time in Japan.</li> <li>1930 Establishes Osaka Plant.</li> <li>1933 Establishes Yamakita Plant; begins production of hydrogen peroxide using the electrolytic method for the first time in Japan.</li> <li>1937 Begins production of laminate material for printed wiring boards for the first time in Japan.</li> </ul>	Japan Gas Chemical Co., Inc.
1950	<ul> <li><b>1951</b> Establishes Naniwa Plant.</li> <li><b>1954</b> Takes a stake in Toyo Kagaku Industries, Inc. (current Toyo Kagaku, Inc.).</li> </ul>	<ul> <li>1951 Japan Gas Chemical Co., Inc. is established; establishes Enoki Plant; acquires natural gas assets.</li> <li>1952 Begins production of methanol from natural gas for the first time in Japan.</li> <li>1954 Lists shares on the Tokyo Stock Exchange. Establishes Osaka Office (current Osaka Branch).</li> <li>1957 Establishes Matsuhama Plant; begins production of ammonia from natural gas for the first time in Japan.</li> <li>1959 Integrates Enoki Plant and Matsuhama Plant and renames the integrated entity as Niigata Plant. Establishes Niigata Research Laboratory. Establishes Japan Hydrazine Co., Inc. (current Japan Finechem Co., Inc.)</li> </ul>
1960	<ul> <li>1961 Begins production of polycarbonate lupilon<sup>®</sup> using interfacial polymerization.</li> <li>1962 Begins production of hydrogen peroxide for electronic industry use.</li> <li>1963 Establishes Yokkaichi Plant; begins commercial production of hydrogen peroxide using the company's proprietary technology (anthraquinone method).</li> <li>1966 Takes a stake in Japan Circuit Industrial Co., Ltd.</li> </ul>	<ul> <li>1960 Nihon Plastic and Chemical Co., Ltd. establishes Mizushima Plant, which later becomes a Japan Gas Chemical plant in 1961 through merger.</li> <li>1962 Establishes Japan Styrene Paper Corporation (current JSP Corporation). Establishes Japan Pure Hydrogen Co., Ltd. (current Japan Pionics Co., Ltd.)</li> <li>1963 Establishes Hiratsuka Research Laboratory.</li> <li>1968 Establishes AG International Chemical Co., Inc. Begins production of high-purity meta-xylene for the first time in the world.</li> </ul>
1970	<ul> <li>1970 Relocates the corporate research laboratory to Kanamachi (current Tokyo Research Laboratory).</li> <li>1971 Begins production of polycarbonate lupilon<sup>®</sup> sheet based on the extrusion method.</li> <li>Oct. 1971 Mitsubishi Gas Chemical Company, Inc.</li> <li>Mitsubishi Gas Chemical Company, Inc.</li> <li>1977 Begins production of AGELESS<sup>®</sup> oxygen absorber; establishes Kashima Plant.</li> </ul>	<ul> <li>1970 Establishes Mizushima Aroma Co., Ltd. Begins production of MXDA.</li> <li>pmpany, Inc. is established in a merger</li> <li>Major Affiliates</li> <li>1977 Establishes Japan U-PICA Co., Ltd. Hiratsuka U-PICA Co., Ltd., and Inuyama U-PICA Co., Ltd. The three companies later merge to form Japan U-PICA Company, Ltd.</li> <li>1979 Establishes Japan Saudi Arabia Methanol Co., Inc.</li> </ul>

Year		His	tory	
1980	1984	Begins production of polyacetal. Begins production of MX nylon. Establishes Saga Plant.	1982 1984 1987	Establishes SAUDI Methanol Company(AR-RAZI). Establishes Mitsubishi Gas Chemical Singapore Pte. Ltd. Establishes Mitsubishi Gas Chemical America, Inc. Establishes Korea Engineering Plastics Co., Ltd. Establishes P.T. Peroksida Indonesia Pratama. Establishes Samyoung Pure Chemicals Co., Ltd.
1990		Begins production of lens monomer; changes Japanese company name. Declares the Implementation of Responsible Care.	1991 1992 1994 1995 1996 1997	Establishes Mitsubishi Gas Chemical Europe GmbH. Establishes MGC Electrotechno Co., Ltd. Establishes Metanol de Oriente, METOR, S.A. (METOR). Establishes Mitsubishi Engineering-Plastics Corporation. Establishes MGC Pure Chemicals America, Inc. Establishes Thai Polyacetal Co., Ltd. Establishes Japan Acryace Corporation. Establishes MGC Pure Chemicals Singapore Pte. Ltd.
2000-	2001 2003 2005 2007 2009	Introduces internal company system. Establishes Electronic Chemicals R&D Center under Tokyo Research Laboratory. All business locations are made ISO 14001 compliant. Introduces executive officer system. Establishes Shanghai Office. Changes the name of Tokyo Plant to Tokyo Development Center. Establishes MGC Chemical Analysis Center. Establishes Sheet Film Tokyo R&D Center under Tokyo Research Laboratory. Establishes Tokyo Techno Park; places Tokyo Research Laboratory and Analysis Center under it; discontinues operation of Tokyo Development Center. Establishes Taiwan Office.	2002 2005 2006 2008	Establishes MGC Pure Chemicals Taiwan, Inc. Establishes Kyodo Kasankasuiso Corporation. Establishes MGC Advanced Polymers, Inc. Integrates Osaka Plant and Fuji Kasei Co., Ltd. to establish MGC Filsheet Co., Ltd. Establishes Brunei Methanol Company Sdn. Bhd. Establishes MGC Trading (Thailand) Ltd. Establishes MGC Trading (Thailand) Ltd. Establishes Suzhou MGC Suhua Peroxide Co., Ltd. Establishes Mitsubishi Gas Chemical Shanghai Commerce Ltd. Establishes Mitsubishi Gas Chemical Engineering- Plastics (Shanghai) Co., Ltd.
		Announces medium-term management plan "MGC Will2014".	2012	Establishes MGC Electrotecho (Thailand) Co., Ltd.

## AWARD-WINNING TECHNOLOGIES

Theme	Year	Award	Organizer
Methanol synthesis from natural gas	1955	Fuel Association Award	Fuel Association
A contact refermer for hydrogon corbonate	1958	Okochi Memorial Prize for Production	Okochi Memorial Foundation
A contact reformer for hydrogen carbonate	1961	The Japan Petroleum Institute Award	The Japan Petroleum Institute
Low biuret urea manufacture	1961	Science and Technology Agency Award	Science and Technology Agency
Technology related to the manufacture of formalin	1961	Society of Synthetic Organic Chemistry, Japan Award	The Society of Synthetic Organic Chemistry, Japan
Research related to natural gas	1965	The Fuel Society of Japan Award	The Fuel Society of Japan
	1965	Chemical Technology Award	The Chemical Society of Japan
Technology related to the manufacture of Hydrogen peroxide through a method of automatic oxidization	1966	Okochi Memorial Prize for Technology	Okochi Memorial Foundation
	1966	Science and Technology Award	Science and Technology Agency
Technology related to the manufacture of sodium hydrosulfite	1969	Okochi Memorial Prize for Technology	Okochi Memorial Foundation
	1969	The Japan Petroleum Institute Award	The Japan Petroleum Institute
The separation of isomers of xylene	1969	The SCEJ Technical Achievement Award	The Society of Chemical Engineers, Japan
	1969	Chemical Technology Award	The Chemical Society of Japan
	1970	Okochi Memorial Prize for Production	Okochi Memorial Foundation
	1970	Science and Technology Agency Award	Science and Technology Agency
	1970	The Fuel Society of Japan Award	The Fuel Society of Japan
	1971	The Technology Award	Japan Chemical Industry Association
The manufacture of xylene resin	1969	Chemical Technology Award	The Chemical Society of Japan
Oxalic acid production technology used in the manufacture of ethylene glycol	1972	The Ichimura Industrial Prize	The New Technology Development Foundation
The development of automatic voltage regulator of electrolytic cell	1972	The Technology Award	The Japan Soda Industry Association
The development of chemical polishing agents based on Hydrogen peroxide	1974	The Technology Award	Metal Finishing Society
Manufacturing technology related to the extrusion of polycarbonate sheet	1977	The Ichimura Industrial Prize	The New Technology Development Foundation
	1981	The Kinoshita Award	Japan Packaging Institute
	1984	The Technology Award	Japan Food Industry Academic Association
	1984	Japan Food Industry and Technology Distinguished Service Award	Shokuhin Sangyo Shimbunsha Co., Ltd
The development of the oxygen absorber/AGELESS®	1993	First Century Anniversary Award	Agricultural Research & Development Association
	1995	Food Industry Distinguished Service Award	Japan Food Journal Co., Ltd.
		20th century food industry development award	Japan Food Journal Co., Ltd.
Methods related to the manufacture of carbon monoxide	1983	The Invention Award	Institute of Invention and Innovation
Ethanol production methods	1983	Science and Technology Agency Award	Science and Technology Agency

Theme	Year	Award	Organizer
	1987	The SCEJ Technical Achievement Award	The Society of Chemical Engineers, Japan
The development and industrialization of production technology for	1987	The Japan Petroleum Institute Award	The Japan Petroleum Institute
aromatic aldehydes used to produce Trimellitic anhydride and Pyromellitic dianhydride	1988	Chemical Technology Award	The Chemical Society of Japan
	1998	Science and Technology Agency Award	Science and Technology Agency
The development of production methods for methyl formate using anhydrous Methanol	1989	Technology Award	Catalysis Society of Japan
Research on classifications for cytochrome C1-microorganisms	1989	Saito Award	The Society of Fermentation Technology, Japan
Consideration of corporate in-house databases	1990	Selected to commemorate the fortieth anniversary	Information Science and Technology Association
The development of new production technology for polycoptal	1991	The Ichimura Industrial Prize	The New Technology Development Foundation
The development of new production technology for polyacetal	1997	Science and Technology Agency Award	Science and Technology Agency
Exploration and development of the Iwafune Offshore Oilfield	1991	The Japan Petroleum Institute Award	The Japan Petroleum Institute
Packaging of steamed rice for microwave ovens by AGELESS®	1992	Good Packaging Award	Japan Packaging Institute
The development of new production methods for aromatic polycarbonates	1993	Okochi Memorial Prize for Production	Okochi Memorial Foundation
The development of new production methods for aromatic polycarbonates	1993	The Technology Award	Japan Chemical Industry Association
Catalytic reduction of nitrogen monoxide at room temperature using degraded activated charcoal	1994	The Japan Institute of Energy Award for Distinguished Paper	The Japan Institute of Energy
The development of meso phase production methods using	1995	Bio Tsukuba Award	Tsukuba Foundation for Chemical and Bio-Technology
aromatic hydrocarbons	1995	Chemical Technology Award	The Chemical Society of Japan
Custom factory integration processes	1996	Aoki-Katashi Award	The Japan Society of Polymer Processing
New synthetic methods for producing Methanol	1998	The SCEJ Technical Achievement Award	The Society of Chemical Engineers, Japan
The development of oxygen absorber film AGELESS OMAC®	2000	Japan Food Journal Award	Japan Food Journal Co., Ltd.
The development of High-refractive-index plastic lenses	2001	Chemical Technology Award	The Chemical Society of Japan
The development of BT resin and BT resin base Printed Wiring Board	2003	Science and Technology Agency Award	Science and Technology Agency
On-site production of new bleaching agent"Peroxymonosulfuric acid" and application of it to pulp bleaching	2011	Sasaki Prize	Japan Technical Association of the Pulp and Paper Industry
Transparent PI for flexible Display	2011	Best Paper Award in the Flexible Display Material Division from the 18th International Display Workshops (IDW'11)	SID(Society of Information Display)

### **Licenses Offered**

As a pioneer in the export of technological licenses and plants, MGC has been contributing to global industrial development by actively offering our technologies. Since 1957 we have offered over 220 licenses in Japan and overseas.

- •Production process for hydrogen cyanide
- Production process for choline chloride
- •Production process for sodium percarbonate
- Production process for dimethyl ether
- •Production process for sodium hydrosulfite
- •Production process for hexamine
- Production process for formalin
- •Production process for methylamine
- •Production process for acetone cyanhydrin
- Production process for hydrogen peroxide
- •Production process for purified terephthalic acid
- •Production process for dimethylformamide
- Production process for super-pure hydrogen peroxide
  Production process for polyacetal
- Production process for methyl methacrylate
- Production process for dimethylacetamide
- Production process for carbon monoxide (from methanol)
- Production process for plasticizers (DOP/DIDP/DINP)
  - •Technology for separation and isomerization of xylene
  - Production process for hydrogen (from methanol)
- Production process for 2,3,6-trimethylphenol
  - Production process for polycarbonate
- Production process for methanol
- Production process for oxygen absorbers

### PRODUCTS OF MGC GROUP

Product	Applications	Contact	Telephone
Basic chemicals (amine)			
Folmamide	Pharmaceuticals, agricultural chemicals		81-3-3283-4874
Dimethylacetamide	High grade solvent, pharmaceuticals, agricultural chemicals		81-3-3283-4746
Dimethylaminoethanol	Flocculating agent, ion-exchange resin, urethane catalyst		81-3-3283-4746
Dimethylfolmamide	High grade solvent		81-3-3283-4838
Monomethylfolmamide	High grade solvent		81-3-3283-4746
Monomethylamine	Rubber vulcanization accelerator, pharmaceuticals, agricultural chemicals, photographic chemicals, dye compound	Organic Chemicals Division	81-3-3283-4746
Dimethylamine	Fiber treatment agent, macromolecute flocculating, surfactant		81-3-3283-4746
Trimethylamine	Crosslinkerst for resin, pharmaceuticals, agricultural chemicals, ion-exchange resin, choline chloride		81-3-3283-4746
41% monomethylamine methanol solution	Pharmaceutical intermediate		81-3-3283-4838
Trimethylamine hydrochloride solution	Paper durability enhancement agent		81-3-3283-4838
3-Chloro-2-hydroxyethylpropyl trimethyl ammonium chloride Hexamine (hexamethylenetetramine)	Paper durability enhancement agent Resin hardener, foaming agent, rubber vulcanization accelerator, pharmaceuticals	Basic Chemicals Division	81-3-3283-4838 81-3-3283-4767
Basic chemicals (methacrylic acid)			
2-Hydroxyisobutyric acid methyl ester	High grade solvent, photographic chemicals, pharmaceuticals, agricultural chemicals		81-3-3283-4874
Methacrylic acid	Coating compounds, adhesive agent, adhesive modifier		81-3-3283-4874
Allyl methacrylate	Coating compounds, AS adhesive modifier, silane coupling agent		81-3-3283-4874
2-Ethylhexyl methacrylate	Coating compounds, adhesive agent, fiber treatment agent		81-3-3283-4874
Glycidyl methacrylate	Coating compounds, antistatic additive, ion-exchange resin		81-3-3283-4874
Diethylaminoethyl methacrylate	Antistatic additive, dyeing assistant, coating compounds		81-3-3283-4874
Cyclohexyl methacrylate	Optical polymers, adhesive agent, coating compounds		81-3-3283-4874
Dimethylaminoethyl methacrylate	Antistatic additive, flocculating agent, paper durability enhancement agent	Organic Chemicals Division	81-3-3283-4874
Stearyl methacrylate	Fiber treatment agent, coating compounds, adhesive compound		81-3-3283-4874
2-Hydroxyethyl methacrylate	Coating compounds, photosensitive resins, contact lens		81-3-3283-4874
i-Butyl methacrylate	Coating compounds, printing ink, fiber treatment agent		81-3-3283-4874
n-Butyl methacrylate	Coating compounds, lubricating oil additive, surface treatment agent		81-3-3283-4874
Methacrylate blend	Coating resins, adhesive modifier		81-3-3283-4874
Benzyl methacrylate	Optical polymers, adhesive agent, coating compounds		81-3-3283-4874
Methyl methacrylate	Acrylic board, molding compound, coating compounds		81-3-3283-4874
Lauryl methacrylate	Coating compounds, adhesive agent		81-3-3283-4874
s-Lauryl methacrylate	Coating compounds, adhesive agent, lubricating oil additive		81-3-3283-4874
Basic chemicals (polyol)			
Glycol esters	UV cure resin		81-3-3283-4791
Dioxane glycol	UV cure resin, polyurethan		81-3-3283-4791
di-Trimethylol propane Spiroglycol	UV cure resin, polyurethane, ester for lubricant Polyester, polyurethane, UV cure resin, modifying agent for synthetic resin		81-3-3283-4791 81-3-3283-4791
Trimethylolethane	Resin for alkyd paint, titanium oxide surface treatment agent	Organic Chemicals Division	81-3-3283-4791
Trimethylolpropane	Resin for alkyd paint, italiain oxide sandet reament agent Iubricant		81-3-3283-4791
Neopentylglycol	Resin for alkyd paint, resin for powdered paint, unsaturated polyester, polyurethane		81-3-3283-4791
Basic chemicals (aromatic aldehydes)			
para-Isobutylbenzaldehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials		81-3-3283-4714
para-Ethylbenzaldehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, Additives for resin, electronic materials		81-3-3283-4714
Cuminaldehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials		81-3-3283-4714
2,4-Dimethylbenzaldehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials		81-3-3283-4714
3,4-Dimethylbenzaldehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials	Aromatia Chemicala Divisiona I	81-3-3283-4714
2,4,5-Trimethylbenzaldehyde	Agricultural chemicals, pharmaceuticals, pigment, synthesis fragrances, additives for resin, electronic materials	Aromatic Chemicals Division I	81-3-3283-4714
2,4,6-Trimethylbenzaldehyde	Agricultural chemicals, pharmaceuticals, synthesis fragrances, pigment, additives for resin, electronic materials		81-3-3283-4714
para-Tolualdehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials		81-3-3283-4714
N-Propylbenzaldehyde (NPBAL)	Synthesis fragrances, Pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials		81-3-3283-4714
para-Phenylbenzaldehyde	Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials		81-3-3283-4714

Product	Applications	Contact	Telephone
Basic chemicals (aromatic carboxylic acid)			
Ortho-Toluic Acid	Pharmaceuticals, agricultural chemicals, vinyl stabilization agent	Aromatic Chemicals Division I	81-3-3283-4714
Purified isophthalic acid	Modifying polyester	Aromatic Chemicals Division II	81-3-3283-4919
Purified terephthalic acid	Polyester	Aromatic Chemicals Division II	81-3-6414-4702
Cyclohexane-1,2,4-tricarboxylic acid	Resin modifier		81-3-3283-4815
Cyclohexane-1,2,4-tricarboxylic acid-1,2-anhydride	Epoxy resin hardener, resin modifier	Aromatic Chemicals Company, Planning & Development Division	81-3-3283-4815
2,6-Decahydronaphthalene dicarboxy acid dimethyl ester	Resin modifier		81-3-3283-4815
2,6-Napthalenedicarboxylic acid, dimethyl ester	PBN resin, PEN resin (film, sheet, bottle, tire code)		81-3-3283-4817
Pyromellitic acid	Additives for resin	Aromatic Chemicals Division I	81-3-3283-4817
Trimellitic anhydride	Plasticizer, varnish, coating compounds, toner binder		81-3-3283-4817
Pyromellitic dianhydride	Polyimide resin, film, plasticizer		81-3-3283-4817
Phthalic anhydride	Plasticizer, coating compounds, unsaturated polyester	Aromatic Chemicals Division II	81-3-3283-4702
Meta-Toluic acid	Pharmaceuticals, agricultural chemicals, vinyl stabilization agent	Aromatic Chemicals Division I	81-3-3283-4714
Basic chemicals			
Isophthalonitrile	Synthetic resin	Aromatic Chemicals Division I	81-3-3283-4754
Ortho-xylene	Phthalic anhydride, synthetic resin	Aromatic Chemicals Division II	81-3-3283-4702
3,5-Xylenol	Synthetic resin, agricultural chemicals	Aromatic Chemicals Division I	81-3-3283-4817
Acetic acid	Acetate fiber, reagent, dye compound, solvent	Aromatic Chemicals Division II	81-3-3283-4702
Para-xylene	Terephthalic acid, synthetic resin		81-3-3283-4702
1,3-Bis (Aminomethyl) cyclohexane	Epoxy resin hardener, organic synthesis, intermediary substance		81-3-3283-4800
Mesitylene	Dye compounder, antioxidant, additives for resin	Aromatic Chemicals Division I	81-3-3283-4800
Meta-xylene	Agricultural chemicals pigment		81-3-3283-4800
Meta-xylenediamine	Synthetic resin, epoxy resin hardener, organic synthesis intermediate		81-3-3283-4800
Ammonia	Fertilizer, synthetic fibers, refrigerator-freezer refrigerant, acrylonitrile	Organic Chemicals Division	81-3-3283-4838
Aqueous ammonia	Denitration, active sludge nutrient		81-3-3283-4838
Methanol	Formalin, acetic acid, methyl methacrylate, methyl chlorides, coating compounds, synthetic resin, solvent, pharmaceuticals		81-3-3283-4771
Formalin	Plywood binding agent, synthetic resin, vinylon, hexamine, pentaerythritol, paraform, pharmaceuticals	Basic Chemicals Division	81-3-3283-4767
Folmalol M	Coating compounds		81-3-3283-4767
Folmalol IB	Coating compounds		81-3-3283-4767
Folmalol NB	Coating compounds		81-3-3283-4767
Methyl formate	Casting hardener, CO source	Organic Chemicals Division	81-3-3283-4746
Dimethyl ether (for aerosol propellant)	Aerosol propellant	0	81-3-3283-4838
Dimethyl ether (for fuel)	Diesel engine fuel	Fuel DME Production Co., Ltd	81-3-3283-4824
Paraform (paraformaldehyde)	Coating compounds, adhesive agent, textile-processing resins, phenol resins	Basic Chemicals Division	81-3-3283-4767
Hydrogen peroxide	Bleaching agent for textiles, paper and pulp, other industrial applications	Inorganic Chemicals Division, Sales & Marketing Department	81-3-3283-4759
Formic acid	Dyeing assistant, pharmaceuticals, tanning	Fine Chemicals Sales & Marketing	81-3-6861-0054
Oxalic acid	Alumite oxidizing film-forming agent, confectionery manufacture, synthetic resin, rare earth, dyeing assistant, pharmaceutical, pharmaceuticals	Division Ryoko Chemical Co., Ltd.	81-3-6861-0054
Hydrazine hydrate	Boiler compound, foaming agent, pharmaceuticals, agricultural chemicals, inflator for SRS airbags	Otsuka-MGC Chemical Co., Inc.	81-6-4706-7562
Plastics/monomers/resin hardener			
ALTESTER® (heat-resistant PET resin)	Industrial and food packaging materials, optical sheets and films		81-3-3283-4880
Optimas® (high-performance acrylic polymer)	Light guide plate, protective cover for liquid crystal, lenses, automotive components, optical sheets and films	Organic Chemicals Division	81-3-3283-4866
Nylon-MXD6 (N-MXD6)	Molding compound, packaging materials (gas barrier film, sheet and PET bottle)		81-3-3283-4799
Gaskamine 240	Epoxy resin hardener		81-3-3283-4754
Gaskamine 328	Epoxy resin hardener, urethane resin hardener	Aromatic Chemicals Division I	81-3-3283-4754
TETRAD <sup>®</sup> -C	Coating compound, adhesive agent, cast molding		81-3-3283-4754
TETRAD <sup>®</sup> -X	Coating compound, adhesive agent, cast molding		81-3-3283-4754
MAXIVE <sup>®</sup> (gas barrier epoxy-based resin)	Laminate adhesive, coating, anti-corrosive paint	Aromatic Chemicals Division	81-3-3283-4815

### PRODUCTS OF MGC GROUP

Product	Applications	Contact	Telephone
LEXTER®	Films, sheets, fiber, molding material	Aromatic Chemicals Division I, Planning & Development Division	81-3-3283-4799 /4804
OPE (oligo-phenylene ether)	Resin for electrical and electronic parts	Specialty Chemicals Company,	81-3-3283-4853
Lumiplus® (high refractive index monomer)	Optical material	Planning & Development Division	81-3-3283-4869
DIAPURESTE® (adamantane derivatives)	Photoresisit monomer	Inorganic Chemicals Division,	81-3-3283-4759
Lens monomer	Monomer for ultra-high refractive plastic glasses lenses	Sales & Marketing Department	81-3-3283-4759
BT Resin	Insulating materials, printed circuit board materials, insulating varnish, coating compounds, adhesive agent	Electronic Materials Division	81-3-3283-4740
Nikanol® (xylene resin)	Acrylic Adhesive, epoxy resin modifier	Fudow Co., Ltd.	81-45-548-4210
Inorganic salts			
Ammonium persulfate	Synthetic resin polymerization catalyst, etching agent, adhesive removal agent		81-3-3283-4759
Potassium persulfate	Synthetic resin polymerization catalyst, etching agent, adhesive removal agent		81-3-3283-4759
Sodium persulfate	Synthetic resin polymerization catalyst, etching agent, adhesive removal agent	Inorganic Chemicals Division, Sales & Marketing Department	81-3-3283-4759
Sodium formate	Mordant, tanning		81-3-3283-4759
Sodium hydrosulfite	Dyeing assistant, reduction cleaner for synthetic fibers, pulp/ textile bleaching agent, reducing agent		81-3-3283-4759
Perbon (sodium perborate monohydrate)	Breaching, oxidant, detergent, oxygen generator	Ryoko Chemical Co., Ltd.	81-3-6861-0050
Ammonium sulfate	Fertilizer	Organic Chemicals Division	81-3-3283-4838
Organic titanates			
Titanium acetylacetonate	Catalyzer, crosslinking agent, surface reforming agent, coupling agent		81-3-3283-4759
Titanium ethyl acetoacetate	Catalyzer, crosslinking agent, surface reforming agent, coupling agent		81-3-3283-4759
Tetra-n-butyl titanate dimer	Catalyzer, crosslinking agent, surface reforming agent, coupling agent	Inorganic Chemicals Division,	81-3-3283-4759
Tetra-n-butyl titanate	Catalyzer, crosslinking agent, surface reforming agent, coupling agent	Sales & Marketing Department	81-3-3283-4759
Triethanol aminato titanium	Catalyzer, crosslinking agent, surface reforming agent, coupling agent		81-3-3283-4759
Tetra stearyl titanate	Catalyzer, crosslinking agent, surface reforming agent, coupling agent		81-3-3283-4759
Special polycarbonates			
lupizeta® EP series (special polycarbonates)	Optical lens, optical films and sheets		81-3-3283-4853
lupizeta <sup>®</sup> FPC series (special polycarbonates)	Electrophotography photoreceptor, various binder, film, sheet, optical use, various electronic device part	Engineering Plastics Division	81-3-3283-4853
lupizeta® PCZ series (special polycarbonates)	Electrophotography photoreceptor, various binder, film, sheet, optical use, various electronic device part		81-3-3283-4853
Engineering plastic			
lupilon® (polycarbonate)	Electrical and electronic components, OA equipment, camera, automotive, optical disk, dialysis treatment equipment, building materials, miscellaneous goods		81-3-6274-9000
lupiace <sup>®</sup> (modified-polyphenylene ether)	OA equipment, electrical parts, automotive parts	Mitsubishi Engineering-Plastics	81-3-6274-9000
lupital <sup>®</sup> (polyacetal)	Functional parts (OA components, automotive, machine)	Corporation	81-3-6274-9000
Reny® (high-performance polyamide)	Automotive components, machinery parts, electronics parts, fishing reel, nail, screw, bolt		81-3-6274-9000
Sheets/films			
Neopulim <sup>®</sup> (transparent polyimide film)	Printed circuit board material for various electronic devices	Aromatic Chemicals Company, Planning & Development Division	81-3-3283-4816
lupilon® Sheet	Face plates, automotive components, machine parts, electronic parts, LCD front plates	Engineering Plastics Division	81-3-3283-4798
lupilon <sup>®</sup> film	Face plates, optical film for LCDs	Sheet-Film Sales Group	81-3-3283-4798
Plasticizers			
Dioctyl Isophthalate (DOIP)	Polyvinyl chloride plasticizer		81-3-5203-2860
Diisononyl Phthalate (DINP)	Polyvinyl chloride plasticizer		81-3-5203-2860
n-Dioctyl phthalate (DOP)	Polyvinyl chloride plasticizer	CG Ester Corporation	81-3-5203-2860
Dibutyl phthalate (DBP)	Polyvinyl chloride plasticizer		81-3-5203-2860
Linevol phthalate (PL200)	Polyvinyl chloride plasticizer		81-3-5203-2860
Trioctyl trimellitate	Polyvinyl chloride plasticizer	Aromatic Chemicals Division II	81-3-3283-4702
Health food ingredients			
Pyrroloquinoline quinone (PQQ)	Food	Natural Gas Chemicals Company,	81-3-3283-4772
S-adenosylmethionine (SAMe)	Food	Planning&Development Division	81-3-3283-4772

Product	Applications	Contact	Telephone
Environmental agents, water treatment agents, disinfectants and disinfection technology			
CONTLIME®	Inhibitor of slime, scale, legionella and corrosion		81-3-3272-8261
DESLIME®	Desliming agent, pipe cleaning agent	Dia Aqua Solutions Co. Inc.	81-3-3272-8261
Deo-Power <sup>®</sup>	Deodorization of drainage and wastewater		81-3-3272-8261
Peracetic acid	Oxidizing agent, bleaching agent, antibacterial agent		81-3-3283-4759
Mild Fenton treatment	Soil and groundwater decontamination	Inorganic Chemicals Division, Sales & Marketing Department	81-3-3283-4759
Mild GEO Cleaner	Purifying agents for soil and underground water	Sales & Marketing Department	81-3-3283-4759
Catalase (hydrogen peroxide decomposing agent)			
ASC Super (catalase)	Hydrogen peroxide decomposing agent (industrial use)		81-3-3283-0054
ASC Hair	Hydrogen peroxide decomposing agent (hair treatment)		81-3-3283-0054
Solica <sup>®</sup> (granule-type formulation of hydrogen peroxide decomposing agent)	Hydrogen peroxide decomposing agent (granule-type)	Ryoko Chemical Co., Ltd.	81-3-3283-0054
Electronic chemicals			
Super-pure hydrogen peroxide	Cleaner for use in electronic industry, etching agent, resist stripping agent		81-3-3283-4755
Super-pure ammonium hydroxide	Cleaner for use in electronic industry, etching agent		81-3-3283-4755
ELM clean	Cleaner for semiconductor and flat-panel display, etching agent, resist stripping agent	Inorganic Chemicals Division Electronics Chemical Department	81-3-3283-4755
Chemical polishing agent (clean etch series)	Abrasive compound for printed wiring board, etching agent, resist development and stripping agent, Metal-surface treatment agent		81-3-3283-4755
Materials for printed wiring board			
High-performance epoxy material for multi-layered PWB	Printed wiring board		81-3-3283-4740
BT materials for high frequency circuits	Printed wiring board		81-3-3283-4740
BT materials for Chip-On-Board, Burn-In-Board and multi- layered PWB	Printed wiring board	_	81-3-3283-4740
BT materials for Chip-LED	Printed wiring board		81-3-3283-4740
BT materials for IC Plastic Package	Printed wiring board	Electronic Materials Division	81-3-3283-4740
BT materials for High Speed IC Plastic Package	Printed wiring board		81-3-3283-4740
Mass molding laminates	Multi-layered printed wiring board		81-3-3283-4740
LE (lubricated entry) SHEET	Entry sheet for mechanical drilling of printed circuit boards		81-3-3283-4740
Laser sheet	Printed circuit board laser machining support material		81-3-3283-4740
Oxygen absorbers			
AGELESS <sup>®</sup> (oxygen absorbe)	Keep freshness, aroma, flavor and taste, prevention of mold, vermination, oxidation and discoloration		81-3-3283-4842
AGELESS·OMAC <sup>®</sup> (oxygen absorber film)	Liquid food, pharmaceuticals		81-3-3283-4842
AGELESS EYE® (oxygen indicator)	Packaging control, seal and airtight check of packaging container		81-3-3283-4842
AGELESS DRY <sup>®</sup> (calcium oxide desiccant)	Desiccant	Oxygen Absorbers Division	81-3-3283-4842
AGELESS EVA® (alcohol generating agent)			81-3-3283-4842
Anaero Pack® (anaerobic cultivation system)	Anaerobic cultivation system		81-3-3283-4842
RP System® (RP agent-gas-barrier bags)	Metals/electronic components, deterioration prevention/ insecticide for cultural assets		81-3-3283-4842
PharmaKeep® (for pharmaceuticals/medical equipment)	Preservation of pharmaceuticals and medical equipment		81-3-3283-4842
Gas, gas generator			
Liquefied carbon dioxide	Food, welding, casting, barium carbonate	Orangia Obergiantis Di tata d	81-3-3283-4838
Dry Ice/Dry Pellet	Cooling	Organic Chemicals Division	81-3-3283-4838
MH-MD process (H <sub>2</sub> gas and CO gas manufacturing device for methanol use)	High-purity hydrogen gas and CO gas production equipment	Basic Chemicals Division	81-3-3283-4831
Catalyzer			
Catalyzer (methanol synthesis)	Methanol synthesis	Paris Oberricula Di 121	81-3-3283-4792
Catalyzer (H <sub>2</sub> ·CO generation)	H₂·CO generation	Basic Chemicals Division	81-3-3283-4792
Others			
Diaprone (reducing agent for high fluidity concrete)	Reducing agent for high fluidity concrete	Natural Gas Chemicals Company, Planning&Development Division	81-3-3283-4772

### MAJOR GROUP COMPANIES

In Japan	manufacturing/ rading information/ informati						tribution others others
Classification	Company name	Business descripti	on	Company	Address	Zip Code	Telephone
С	A.G. INTERNATIONAL CHEMICAL CO., INC.	Manufacture of purified isophthalic acids	28	Aromatic Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-4919
С	EIWA CHEMICAL INDUSTRY CO., LTD.	Manufacturing of blowing agents	200	Specialty Chemicals Company	[Head office] Daido Seimei Co. Kyoto Building 9F Sanjo-sagaru karasuma-dori, Nakagyo-ku, Kyoto-shi	604-8161	81-75-256-5131
С	A&C CO., INC.	Manufacturing of choline chloride	200	Natural Gas Chemicals Company	[Head office] 4061-2 Tayuhama, Kita-ku Niigata-shi, Niigata	950-3112	81-25-259-7187
	AGELESS SERVICE CENTER CO., LTD.	Technical service for AGELESS	Ø	Information & Advanced Materials Company	[Head office] 3-6-1 Kanda Surugadai Chiyoda-ku, Tokyo	101-0062	81-3-3251-0761
С	MGC ELECTROTECHNO CO., LTD.	Manufacturing of copper- clad laminates	200	Information & Advanced Materials Company	[Plant] 9-41 Sugiyama, Yone, Nishigo-mura Nishishirakawa-gun, Fukushima	961-8031	81-248-25-5000
	MGC ENGINEERING CO., LTD.	Engineering/ maintenance	others	Corporate	[Head office/plant] 1318 Tayuhama, Kita-ku Niigata-shi, Niigata	950-3112	81-25-259-2711
E	OTSUKA-MGC CHEMICAL CO., INC.	Manufacturing and sales of hydrazine hydrate	200	Specialty Chemicals Company	[Head office] Nihon-seimei Yodoyabashi Building 3-5-29 Kitahama, Chuo-ku Osaka-shi, Osaka	541-0041	81-6-4706-7562
	MGC COMPUTER SERVICE CO., LTD.	Computer system service	Ø	Corporate	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-4845
	DU PONT-MGC CO., LTD.	Manufacturing and sales of anhydrous pyromellitic acid	200	Aromatic Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-4723
	MGC NIIGATA SERVICE CO., LTD.	Analysis service, Transportation/storage	R	Natural Gas Chemicals Company	[Head office] 3500 Matsuhama-cho, Kita-ku Niigata-shi, Niigata	950-3121	81-25-259-6293
С	MGC FINANCE CO., LTD.	Financing for group companies	others	Corporate	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-5093
С	MGC FILSHEET CO., LTD.	Manufacturing of polycarbonate sheets and films	200	Specialty Chemicals Company	[Head office/plant] 4-2242 Mikajima Tokorozawa-shi, Saitama	359-1164	81-42-948-2151
	MGC LOGISTICS SERVICE MIZUSHIMA CO., LTD.	Transportation/storage	R	Aromatic Chemicals Company	[Head office] 3-10 Mizushima-kaigandori Kurashiki-shi, Okayama	712-8071	81-86-446-3825
	MGC LOGISTICS YAMAKITA CO., LTD.	Operation duties	others	Specialty Chemicals Company	[Head office] 950 Kishi, Yamakita-machi Ashigarakami-gun, Kanagawa	258-0112	81-465-75-2635
	OSAKA NAIGAI EKIYU CO., LTD.	Transportation	R	Natural Gas Chemicals Company	[Head office] 3-2-50 Sakurajima Konohana-ku, Osaka	554-0031	81-6-6468-4501
	OSHIKA FORMALIN CO., LTD.	Sales of formalin	1 <u>~</u>	Natural Gas Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-4775
С	MARINE TRANSPORT AND TERMINAL CO., LTD.	Storage terminal for chemicals	R	Natural Gas Chemicals Company	[Head office] 2881-30 Hamabe, Taroudai, Kita-ku Niigata-shi, Niigata	950-3101	81-25-255-2041
	KAGAKU UNYU CO., LTD.	Transportation/storage	R.	Aromatic Chemicals Company	[Head office] 3-1-11 Mizushima-nakadori Kurashiki-shi, Okayama	712-8072	81-86-448-3655
С	KINOE TERMINAL CO., LTD.	Storage terminal for methanol	r.	Natural Gas Chemicals Company	[Head office] Tokyo Sakurada Building, 1-1-3 Nishi-Shinbashi, Minato-ku, Tokyo	105-0003	81-3-3593-3035
С	KYOUDOU KASANKASUISO CORP.	Manufacturing of hydrogen peroxide	200	Specialty Chemicals Company	[Head office/plant] 35 Higashi Wada, Kamisu-shi, Ibaraki	314-0102	81-299-97-0785
	KYODO SAKUSAN CO., LTD.	Manufacturing and sales of acetic acid using the methanol carbonylation process	28	Aromatic Chemicals Company	[Head office] Kasumigaseki Business Center, 3-7-1 Kasumigaseki, Chiyoda-ku, Tokyo	100-0013	81-3-3503-7503
	GRANOPT CO., LTD.	Manufacturing and sales of RIG (Bi-substituted rare-earth iron garnet single crystals)	žB	Information & Advanced Materials Company	[Head office/plant] 4-4 Ougibuchi, Ougida Noshiro-shi, Akita	016-0122	81-185-70-1800
С	KOKUKA SANGYO CO., LTD.	Shipping	r.	Natural Gas Chemicals Company	[Head office] NBF Hibiya Building, 1-1-7 Uchisaiwaicho, Chiyoda-ku, Tokyo	100-0011	81-3-3593-3663

Classification	Classification Company name Business d		on	Company	Address	Zip Code	Telephone
E	CG ESTER CORP.	Manufacturing and sales of plasticizers	200	Aromatic Chemicals Company	L andic Ninonpashi Buliding		81-3-5203-2860
E	JSP CORP.	Manufacturing and sales of foamed plastic	28	Corporate	[Head office] Shin Nisseki Building 3-4-2 Marunouchi, Chiyoda-ku, Tokyo	100-0005	81-3-6212-6300
	SHINSANSO KAGAKU CO.	Manufacturing of hydrogen peroxide	že	Specialty Chemicals Company	[Head office/plant] 148-58 Yufutsu Tomakomai-shi, Hokkaido	059-1372	81-144-55-7337
	DIA AQUA SOLUTIONS CO., INC.	Sales and technical service of water treatment agent	Ø	Specialty Chemicals Company (Head office) Nippon Building, 2-6-2 Otemachi Chiyoda-ku, Tokyo		100-0004	81-3-3272-8261
С	TOKYO SHOKAI, LTD.	Sales of synthetic resins and electronic materials	1	Corporate	[Head office] 3-6-1 Kanda Surugadai Chiyoda-ku, Tokyo	101-0062	81-3-3251-0171
E	TOHO EARTHTECH, INC.	Manufacturing and sales of natural gas and plastics	200	Natural Gas Chemicals Company	[Head office] 86-51 Ichiban-cho, Higashi Nakadori Chuo-ku, Niigata	951-8116	81-25-229-2121
С	TOYO KAGAKU CO., LTD.	Manufacturing and sales of plastic injection molding	200	Specialty Chemicals Company	[Head office/plant] 51-497 Doudou, Morowa, Togo-cho Aichi-gun, Aichi	470-0151	81-561-39-0531
	NISSHIN UNYU CO., LTD.	Transportation/storage	56	Natural Gas Chemicals	[Head office] 1383 Tayuhama, Kita-ku Niigata-shi, Niigata	950-3112	81-25-259-3255
	NISSHIN COLORING CO., LTD.	Coloration processing of plastic	200	Specialty Chemicals Company	[Head office] 2506-6 Ogohara, Komono-cho Mie-gun, Mie	510-1222	81-593-94-3100
E	JAPAN ACRYACE CORP.	Manufacturing and sales of acrylic sheets	200	Natural Gas Chemicals Company	[Head office] Shin nisseki Building 3-4-2 Marunouchi, Chiyoda-ku, Tokyo	100-0005	81-3-6212-6390
С	JAPAN CIRCUIT INDUSTRIAL CO., LTD.	Manufacturing and sales of printed circuit boards	200	Information & Advanced Materials Company	[Head office/plant] 2-1236 Kamiike-cho, Toyota-shi, Aichi	471-0804	81-565-88-3718
E	JAPAN SAUDI ARABIA METHANOL CO., INC.	Business administration for AR-RAZI	others	Natural Gas Chemicals Company	[Head office] Tokyo Sakurada Building 1-1-3 Nishi-Shinbashi, Minato-ku Tokyo	105-0003	81-3-3593-3541
	JAPAN DME CO., LTD.	Study of the development of DME business	others	Natural Gas Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-4824
С	JAPAN BIO CO., LTD.	Rent facilities	others	Natural Gas Chemicals Company	[Head office] 3500 Matsuhama-cho, Kita-ku Niigata-shi, Niigata	950-3121	81-25-259-3165
С	JAPAN PIONICS CO., LTD.	Manufacturing and sales of gas purifier	200	Natural Gas Chemicals Company	[Head office] 3-3-32 Tamura Hiratsuka-shi, Kanagawa	254-0013	81-463-53-8300
C	JAPAN FINECHEM CO., INC.	Manufacturing and sales of fine chemicals and electronic products	200	Natural Gas Chemicals Company	[Head office] Uchisaiwaicho Tokyu Building 1-3-2, Uchisaiwaicho, Chiyoda-ku,Tokyo	100-0011	81-3-5511-4600
	JAPAN FORMALIN CO., INC.	Manufacturing and sale of formalin	200	Natural Gas Chemicals Company	[Head office] 3-7-20, Nihonbashi Chuo-ku, Tokyo	103-0027	81-3-5203-7751
	JAPAN METHYL ETHER CO., LTD.	Manufacturing and sales of dimethyl ether	200	Natural Gas Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo	100-8324	81-3-3283-4825
E	JAPAN U-PICA CO., LTD.	Manufacturing and sales of unsaturated polyester resins	200	Corporate	[Head office] Madre Matsuda Building 4-13 Kioi-cho, Chiyoda-ku, Tokyo	102-0094	81-3-6850-0251
	FUEL DME PRODUCTION CO., LTD.	Manufacture of dimethyl ether	200	Natural Gas Chemicals Company	[Head office] 86-51 Ichiban-cho, Higashi-nakadori Kita-ku, Niigata	951-8116	81-3-3283-4824
С	FUDOW CO., LTD.	Manufacturing and sale of molding resins	200	Aromatic Chemicals Company	[Head office] 2-15-16 Shin Yokohama, Kohoku-ku Tokohama-shi, Kanagawa	222-0033	81-45-548-4210
С	POLYOLS ASIA CO., INC.	Manufacturing and sales of polyhydric alcohols	ž	Natural Gas Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi Chiyoda-ku, Tokyo		81-3-3283-4825
E	MIZUSHIMA AROMA CO., LTD.	Manufacturing and sales of purified terephthalic acid	200	Aromatic Chemicals Company	[Head office/plant] 2-3-1 Mizushima-kaigandori Kurashiki-shi, Okayama	712-8072	81-86-446-4570
	MIZUSHIMA KASOZAI CO., LTD.	Manufacturing and sales of special plasticizer	200	Aromatic Chemicals Company	[Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo	100-8324	81-3-3283-4733

### MAJOR GROUP COMPANIES

				200	manufacturing/ witrading service	tion/	tribution others others
Classification	Company name	Business descripti	on	Company	Address	Zip Code	Telephone
	MIZUSHIMA PARAXYLENE CO., LTD.	Manufacturing and sales of petrochemistry product	28	Aromatic Chemicals Company	[Head office] 2-6-3 Otemachi, Chiyoda-ku, Tokyo	100-8161	81-3-6275-5109
E	MITSUBISHI ENGINEERING- PLASTICS CORP.	Manufacturing and sales of engineering plastics	že	Specialty Chemicals Company	[Head office] Shiodome Sumitomo-Building. 1-9-2 Higashi-shinbashi, Minato-ku, Tokyo	105-0021	81-3-6274-9000
	HACHIMANTAI GEOTHERMAL CORP.	Maintenance of steam facilities, environmental monitoring	others	Natural Gas Chemicals Company	[Head office] Kaminakajima 140 Hanawa, Kazuno-shi, Akita	018-5201	81-186-23-3861
	YAMADA KASEI CO., LTD.	Manufacturing and sales of chemical products and synthetic resins	1. See	Corporate	[Head office] Yamada Building, 2-8-4 Uchikanda Chiyoda-ku, Tokyo	101-0047	81-3-3256-7861
	YUTAKA CHEMICAL CORPORATION	Manufacturing and sales of formaline	200	Natural Gas Chemicals Company	[Head office] 8-1 Akashi-cho, Chuo-ku, Tokyo	104-0044	81-3-5148-7134
С	YONEZAWA DIA ELECTRONICS CO., INC.	Manufacture of mass molding laminates, prosess development	200	Information & Advanced Materials Company	[Head office] 3-446-3 Hachimanbara Yonezawa-shi, Yamagata	992-1128	81-238-28-1345
С	RYOKO CHEMICAL CO., LTD.	Sale of chemicals for general industry use and packing materials	1	Corporate	[Head office] 4-12-20 Nihonbashi Honcho Chuo-ku, Tokyo	103-0023	81-3-6861-0050
	RYOKO LOGISTICS CO., LTD.	Transportation/storage		Specialty Chemicals Company	[Head office] 2-81 kamisu-cho, Toyonaka-shi Osaka	561-0823	81-6-6331-2453
	RYODEN KASEI CO., LTD.	Manufacturing and sales of insulating materials	200	Specialty Chemicals Company	[Head office/plant] 2-6-1 Miwa, Sanda-shi, Hyogo	669-1513	81-79-562-6801
	RYOUTOU UNYU SOUKO CO., LTD.	Transportation/storage		Information & Advanced Materials Company	[Head office] 5-13-3 Niijuku, Katushika-ku, Tokyo	125-0051	81-3-3607-1205
	RYOYU INDUSTRIAL CORP.	Manufacture of flat heaters	že	Natural Gas Chemicals Company	[Head office] 192-5 Itakurakuinamasu, Joetsu City, Niigata Prefecture	944-0101	81-255-78-2945
С	RYOYO TRADING CO., LTD.	Sales of chemical products/insurance agent	1. See	Corporate	[Head office] Tokyo Sakurada Building. 1-1-3 Nishi-Shinbashi, Minato-ku, Tokyo	105-0003	81-3-3506-3750
С	RYOWA ENTERPRISE CO., LTD.	Property management/ travel agency	Ø	Corporate	[Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo	100-8324	81-3-3283-4945

C=Consolidated subsidiary E=Equity method affiliate

Overseas	6				manufacturing/ witrading	informat service	tion/	ribution others others
Classification	Company name	Business descripti	on	Company	Address	Zip Code	Country	Telephone
	AGELESS (THAILAND) CO., LTD.	Manufacturing and sales of oxygen absorbers	28	Information & Advanced Materials Company	[Head office/plant] Amatanakorn Industrial Estate 700/323 MOO6, Tumbol, Don Hua Lor Muang Chonburi District, Chonburi		Thailand	66-38-458-351
E	BRUNEI METHANOL COMPANY SDN. BHD.	Manufacturing and sales of methanol	200	Natural Gas Chemicals Company	[Head office] Sungai Liang Industrial Park (SPARK) Kg. Sungai Liang Daerah Belait	KC1135	Brunei Darussalam	673-322-9300
E	KOREA ENGINEERING PLASTICS CO., LTD.	Manufacturing and sales of polyacetal resins	200	Specialty Chemicals Company	[Head office] 450, Kongduk-Dong, Mapo-Ku, Seoul 121-720	121-720	Korea	82-2-707-6840
E	METANOL DE ORIENTE, METOR, S.A.	Manufacturing and sales of methanol	28	Natural Gas Chemicals Company	[Head office] Jose Petrochemical Complex Jose-Estado Anzoategui-Venezuela- Apdo Postal 5077 P.L.CC.P.6023		Venezuela	58-281-420-8851
С	MGC ADVANCED POLYMERS, INC.	Manufacturing and sales of nylons	ŽB	Aromatic Chemicals Company	[Head office/plant] 1100 Port Walthall Drive Colonial Heights, Virginia	VA 23834	U.S.A.	1-804-520-7800

Classification	Company name	Business descript	ion	Company	Address	Zip Code	Country	Telephone
С	MGC ELECTROTECHNO (THAILAND)CO.,LTD.	Manufacturing of copper clad laminates	200	Information & Advanced Materials Company	[Head office/plant] 500/128 Moo3, Tambol Tasit, Amphur Pluak Daeng, Rayong Province 21140		Thailand	66-38-950-470
С	MGC PURE CHEMICALS AMERICA, INC.	Manufacturing and sales of ultra-pure hydrogen peroxide	200	Specialty Chemicals Company	hemicals 6560 South Mountain Road, Mesa		U.S.A.	1-480-987-910
С	MGC PURE CHEMICALS SINGAPORE PTE. LTD.	Manufacturing and sales of ultra-pure hydrogen peroxide/Super-pure ammonium hydroxide/ Chemical polishing agent	200	Specialty Chemicals Company	[Head office/plant] 29 Tuas West Road	638428	Singapore	65-6897-897
С	MGC PURE CHEMICALS TAIWAN, INC.	Manufacturing and sales of ultra-pure Hydrogen peroxide	200	Specialty Chemicals Company	[Head office/plant] 12, Jing 1st Road, Chung Kang Economic Processing Zone, Wuchi District, Taichung City 435, Taiwan		Taiwan	886-4-2658-44
	MGC TRADING (THAILAND) LTD.	Sales of chemical products in Asia	1. Second	Corporate	[Head office] 18th Floor, Unit 1810, Empire Tower 195 South Sathorn Rd., Yannawa Sathorn, Bangkok	10120	Thailand	66-2-670-341
С	MITSUBISHI GAS CHEMICAL AMERICA, INC.	Sales of chemical products/functional products in USA	1 <u>7</u>	Corporate	[Head office] 655 Third Avenue, 24th Floor New York	10017	U.S.A.	1-212-687-903
С	MITSUBISHI GAS CHEMICAL ENGINEERING- PLASTICS(SHANGHAI)CO., LTD.	Manufacturing and sales of polycarbonate resin	1. Second	Specialty Chemicals Company	[Head office] No.55 Mu Hua Road Shanghai Chemical industry Park, Shanghai	201507	China	86-21-3127-336
	MITSUBISHI GAS CHEMICAL EUROPE GMBH	Sales of aromatic chemicals/ functional products in Europe	u‱0	Corporate	[Head office] Immermannstr. 13, Dusseldorf	D-40210	Germany	49-211-36308
	MITSUBISHI GAS CHEMICAL SHANGHAI COMMERCE LTD.	Sales of chemical products/functional products in China	∎ <b>Z</b>	Corporate	[Head office] 2110A, Westgate Mall, 1038 Nanjing Road (W), Shanghai	200041	China	86-21-6218408
С	MITSUBISHI GAS CHEMICAL SINGAPORE PTE. LTD.	Sale of methanol and other chemicals in the Southeast Asia	∎ <b>Z</b>	Corporate	[Head office] 24 Raffles Place #16-01 Clifford Centre	048621	Singapore	65-6224-0059
С	P.T. PEROKSIDA INDONESIA PRATAMA	Manufacturing and sales of hydrogen peroxide	200	Specialty Chemicals Company	[Head office] Jl. Jend. A. Yani, P.O. Box 53 Cikampek, 41373, Jawa Barat		Indonesia	62-264-31-338
	POLYXYLENOL SINGAPORE PTE. LTD.	Manufacturing of polyphenylene ether resin	200	Specialty Chemicals Company	[Head office] 6 Battery Road #13-01	049909	Singapore	65-6324-3001
	PTM ENGINEERING PLASTICS (NANTONG) CO. LTD.	Manufacturing and sales of polyacetal resin		Specialty Chemicals Company	[Head office] No.171 Minxing Road, NETDA, Jiangsu Province		China	86-513-8592-20
С	SAMYOUNG PURE CHEMICALS CO., LTD.	Manufacturing and sales of ultra-pure hydrogen peroxide	200	Specialty Chemicals Company	[Head office] Block4-1, 5th Industrial Complex, Daehwa-ri, Seongnam-myeon, Dongnam-gu, Cheonan-si	330-892	Korea	82-41-520-800
	SAUDI METHANOL CO. (AR- RAZI)	Manufacturing and sales of methanol	200	Natural Gas Chemicals Company	[Head office] P.O.Box 10065 Madinat Al-Jubail Al- Sinaiyah		Kingdom of Saudi Arabia	966-3-357-781
С	SUZHOU MGC SUHUA PEROXIDE CO., LTD.	Manufacturing and sales of hydrogen peroxide/ chemical polishing agent	200	Specialty Chemicals Company	[Head office] Dongsha Chemical Area, Nanfeg Town, Zhangjiagang	215619	China	86-512- 58635600-888
	TAI HONG CIRCUIT INDUSTRIAL CO., LTD.	Manufacturing and sales of printed circuit boards	200	Information & Advanced Materials Company	[Head office/plant] No.1 Chung-chun Lane Min-sheng N.Road., Sec.1 Nan-sheng, Village Kweishan Hsiang, Taoyuan Hsien		Taiwan	886-3-3321-110
E	TE AN LING TIAN (NANJING) FINE CHEMICAL CO., LTD.	Manufacturing and sales of methylamine derivatives	200	Natural Gas Chemicals Company	[Head office] 168 Fenghua Road, Chemical Industry Park, Luhe District, Nanjing	210047	China	86-25-8471099
С	THAI POLYACETAL CO., LTD.	Manufacturing and sales of polyacetal resin	200	Specialty Chemicals Company	[Head office] Emporium Tower, Floor 24/4-7, 622 Sukhumvit Road, Klongton Klongtoey Bangkok	10110	Thailand	66-2-261-9260
E	THAI POLYCARBONATE CO., LTD.	Manufacturing and sales of polycarbonate resin	200	Specialty Chemicals Company	[Head office] Emporium Tower, Floor 24/4-7, 622 Sukhumvit Road, Klongton Klongtoey Bangkok	10110	Thailand	66-2-261-926

## **BUSINESS LOCATIONS**

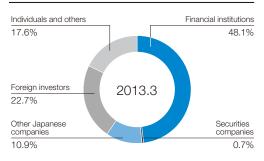
Fax		Telephone	Address	
				Head Office
-3287-0833	) 8	81-3-3283-5000	Applause Tower 23F, 19-19, Chayamachi, Kita-ku, Osaka-shi, Osaka 530-0013	Head Office
				Branch Offices
-6376-1220	) 8	81-6-6372-1300	Kita Hankyu Building, 4-8 Shibata 1-chome Kita-ku, Osaka 530-0012	Osaka Branch
1-62184092	8	86-21-62184081	2110A, Westgate Mall, 1038 West Nanjing Road Shanghai 200041, China	Shanghai Office
2-2552-536	586	886-2-2552-5335	14F-13, No. 211, Sec. 1, Civic Blvd., Taipei 10351, Taiwan	Taiwan Office
				Research Institutes
-3627-9711	8	81-3-3627-9411	1-1 Niijuku 6-chome Katsushika-ku, Tokyo 125-8601	Tokyo Techno Park (TTP)
-3627-9711	8	81-3-3627-9411	1-1 Niijuku 6-chome Katsushika-ku, Tokyo 125-8601	Tokyo Research Laboratory
-3627-9560	6 8	81-3-3627-9586	1-1 Niijuku 6-chome Katsushika-ku, Tokyo 125-8601	MGC Chemical Analysis Center
5-259-8218	8	81-25-259-8211	182 Tayuhama Shinwari, Kita-ku, Niigata 950-3112	Niigata Research Laboratory
63-21-8630	) 8	81-463-21-8600	6-2 Higashiyawata 5-chome Hiratsuka-shi, Kanagawa 254-0016	Hiratsuka Research Laboratory
				Plants
5-259-6931	8	81-25-258-3474	3500 Matsuhamacho, Kita-ku, Niigata 950-3121	Niigata Plant
6-448-4723	8	81-86-446-3822	3-10 Mizushima Kaigandori Kurashiki-shi, Okayama 712-8525	Mizushima Plant
9-347-0799	) 8	81-59-345-8800	4-16 Hinagahigashi 2-chome Yokkaichi-shi, Mie 510-0886	Yokkaichi Plant
-6551-6165	8	81-6-6551-3371	3-27 Funamachi 1-chome Taisho-ku, Osaka 551-0022	Naniwa Plant
52-64-2402	) 8	81-952-64-2400	681-45 Kamikumakawa, Fuji-cho, Saga 840-0512	Saga Plant
65-76-3424	8	81-465-75-1111	950 Kishi, Yamakita-machi Ashigarakami-gun, Kanagawa 258-0112	Yamakita Plant
99-96-5686	8	81-299-96-3121	35 Towada, Kamisu-shi, Ibaraki 314-0102	Kashima Plant
				Overseas Branch Offices
2-687-2810	) 1	1-212-687-9030	655 Third Avenue, 24th Floor, New York, NY 10017 U.S.A.	Mitsubishi Gas Chemical America, Inc.
6224-6079		65-6224-0059	24 Raffles Place #16-01, Clifford Centre, Singapore 048621	Mitsubishi Gas Chemical Singapore Pte. Ltd.
2-670-3419	6	66-2-670-3417	195, Empire Tower, 18Floor, Unit 1810, Sathorn Rd., Yannawa, Sathorn, Bangkok 10120, Thailand	MGC Trading (Thailand) Ltd.
211-354457	Z	49-211-363080	Immermannstr. 13, D-40210, Dusseldorf, Germany	Mitsubishi Gas Chemical Europe GmbH
1-62184092	8	86-21-62184081	2107B, Westgate Mall, 1038 West Nanjing Road Shanghai 200041, China	Mitsubishi Gas Chemical Shanghai Commerce Ltd.
	6	66-2-670-3417 49-211-363080	<ul> <li>24 Raffles Place #16-01, Clifford Centre, Singapore 048621</li> <li>195, Empire Tower, 18Floor, Unit 1810, Sathorn Rd., Yannawa, Sathorn, Bangkok 10120, Thailand</li> <li>Immermannstr. 13, D-40210, Dusseldorf, Germany 2107B, Westgate Mall, 1038 West Nanjing Road</li> </ul>	MGC Trading (Thailand) Ltd. Mitsubishi Gas Chemical Europe GmbH Mitsubishi Gas Chemical Shanghai

### **INVESTOR INFORMATION**

Listing	The first section of the Tokyo Stock Exchange
Ticker code	4182
Authorized shares	984,856,000
Outstanding shares	483,478,398
Stock transaction unit	1,000 - shares
Number of stockholders	26,292
Composition of stockholders	Composition by holders
	Individuals and others Financial institutions 0.3% 96.9% Securities companies 0.1%



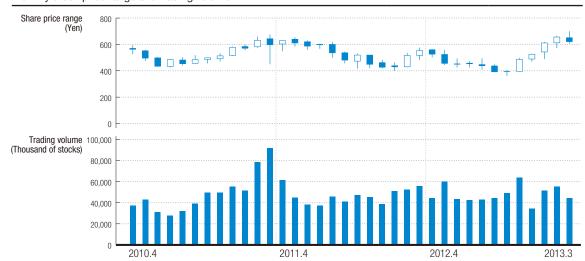
#### Composition by holdings



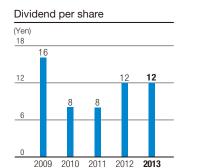
#### Major stockholders (Top 10)

	Name	Number of shares held (Thousands)	Shareholding ratio (%)
1	The Master Trust Bank of Japan, Ltd. (Trust Account)	30,319	6.7
2	Japan Trustee Services Bank, Ltd. (Trust Account)	23,856	5.3
3	Nippon Life Insurance Company	21,452	4.7
4	Meiji Yasuda Life Insurance Company	16,795	3.7
5	National Mutual Insurance Federation of Agricultural Cooperatives	14,069	3.1
6	The Bank of Tokyo-Mitsubishi UFJ, Ltd.	13,611	3.0
7	Mitsubishi UFJ Trust and Banking Corporation	10,128	2.2
8	The Norinchukin Bank	10,053	2.2
9	Asahi Glass Co., Ltd.	9,671	2.1
10	Japan Trustee Services Bank, Ltd. (Trust Account 9)	8,291	1.8

Note: MGC holds 31,769 thousand shares of treasury stock, which is not included in the above list of principal stockholders or percentage calculations.

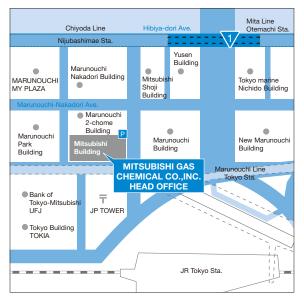


#### Monthly stock price range and trading volume



MGC GROUP DATA BOOK 18

### Head office



#### Access

A two-minute walk from JR Tokyo Station (Marunouchi South Exit)

A one-minute walk from Tokyo Station (Tokyo Metro Marunouchi Line)

A two mains to walk frame Niish a shire

A two-minute walk from Nijubashimae Station (Tokyo Metro Chiyoda Line, Exit 4)



MITSUBISHI GAS CHEMICAL COMPANY, INC.

Mitsubishi Building, 5-2 Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8324 TEL : 81-3-3283-5000 FAX : 81-3-3287-0833 http://www.mgc.co.jp/eng/ (English) http://www.mgc.co.jp/chi/ (Chinese)

