

MGC Group Data Book 2017

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MGC

CORPORATE INFORMATION

Company Name

MITSUBISHI GAS CHEMICAL COMPANY, INC.

Address

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

Original Establishment

January 15, 1918

Incorporation

April 21, 1951

Capital

¥41.97 billion (as of end of March, 2017)

Fiscal Year

Accounts closed in March

Number of Consolidated Subsidiaries and Affiliates

Consolidated subsidiaries: 71 Affiliates: 16 (as of end of March, 2017)

Number of Employees

Non-consolidated: 2,323 Consolidated: 8,034 (as of end of March, 2017)

Main Banks

The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Japan Bank for International Cooperation
Mizuho Bank, Ltd.
Mitsubishi UFJ Trust and Banking Corporation
The Norinchukin Bank
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
- 3) Development, sales and consultations related to geothermal energy and other forms of energy
- 4) 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 (as of July 1, 2017)

Representative Director, Chairman

Kazuo Sakai

Representative Director, President

Toshikiyo Kurai

Representative Directors, Senior Managing Executive Officers

Kunio Kawa

In charge of Finance & Accounting Center, Corporate Communications Division

Kenji Inamasa

In charge of Production Technology Division, Environment & Safety Division, Business Strategy Division; General Manager of Business Strategy Division

Directors, Managing Executive Officers

Masahiro Johno

President of Information & Advanced Materials Company

Yasuhiro Sato

Chairman of Internal Control Promotion Committee; In charge of Compliance; In charge of Risk Management; In charge of Internal Audit Division, Corporate Planning Division, Administrative & Personnel Center, Purchasing & Logistics Center

Masashi Fujii

In charge of LNG Project Team; President of Natural Gas Chemicals Company

Susumu Yoshida

President of Specialty Chemicals Company

Masamichi Mizukami

Deputy Chairman of Compliance Committee; In charge of Research & Development Division, Advanced Business Development Division;

Masato Inari

President of Aromatic Chemicals Company

Outside Directors

Kazuo Tanigawa

Tsugio Sato

Executive Officers

Chiharu Kubota

Plant Manager of Yamakita Plant, Specialty Chemicals Company

Toshiya Takagi

Plant Manager of Niigata Plant, Natural Gas Chemicals Company

Eiji Tsukiji

General Manager of Finance & Accounting Center

Kinji Hiramoto

General Manager of Aromatic Chemicals Division II, Aromatic Chemicals Company

Hiroya Fujii

Plant Manager of Yokkaichi Plant, Specialty Chemicals Company

Kazuhide Horiguchi

General Manager of Organic Chemicals Division, Natural Gas Chemicals Company

Tomohiko Okubo

General Manager of Methanol Division, Natural Gas Chemicals Company; Group Manager of Business Development Division, Methanol Division, Natural Gas Chemicals Company

Takao Ota

President of MITSUBISHI GAS CHEMICAL EUROPE GMBH

Hiroyuki Otsuka

General Manager of Tokyo Techno Park, Tokyo Research Laboratory, Specialty Chemicals Company

Nobuhisa Ariyoshi

General Manager of Electronics Materials Division, Information & Advanced Materials Company

Kenji Kato

Plant Manager of Kashima Plant, Specialty Chemicals Division

Yoshihiro Kayano

General Manager of Advanced Business Development Division; Group Manager of Business Strategy Group, Advanced Business Development Division; Deputy General Manager of Business Strategy Division

Naruyuki Nagaoka

General Manager of Corporate Planning Division

Yasuo Teraoka

General Manager of Engineering Plastics Division, Specialty Chemicals Company; Group Manager of Basic Products Department I, Engineering Plastics Division, Specialty Chemicals Company

Executive General Manager

Shinichi Mitsuda

General Manager of Energy & Resources Division; Project Leader of LNG Project Team, Natural Gas Chemicals Company

Audit & Supervisory Board Members

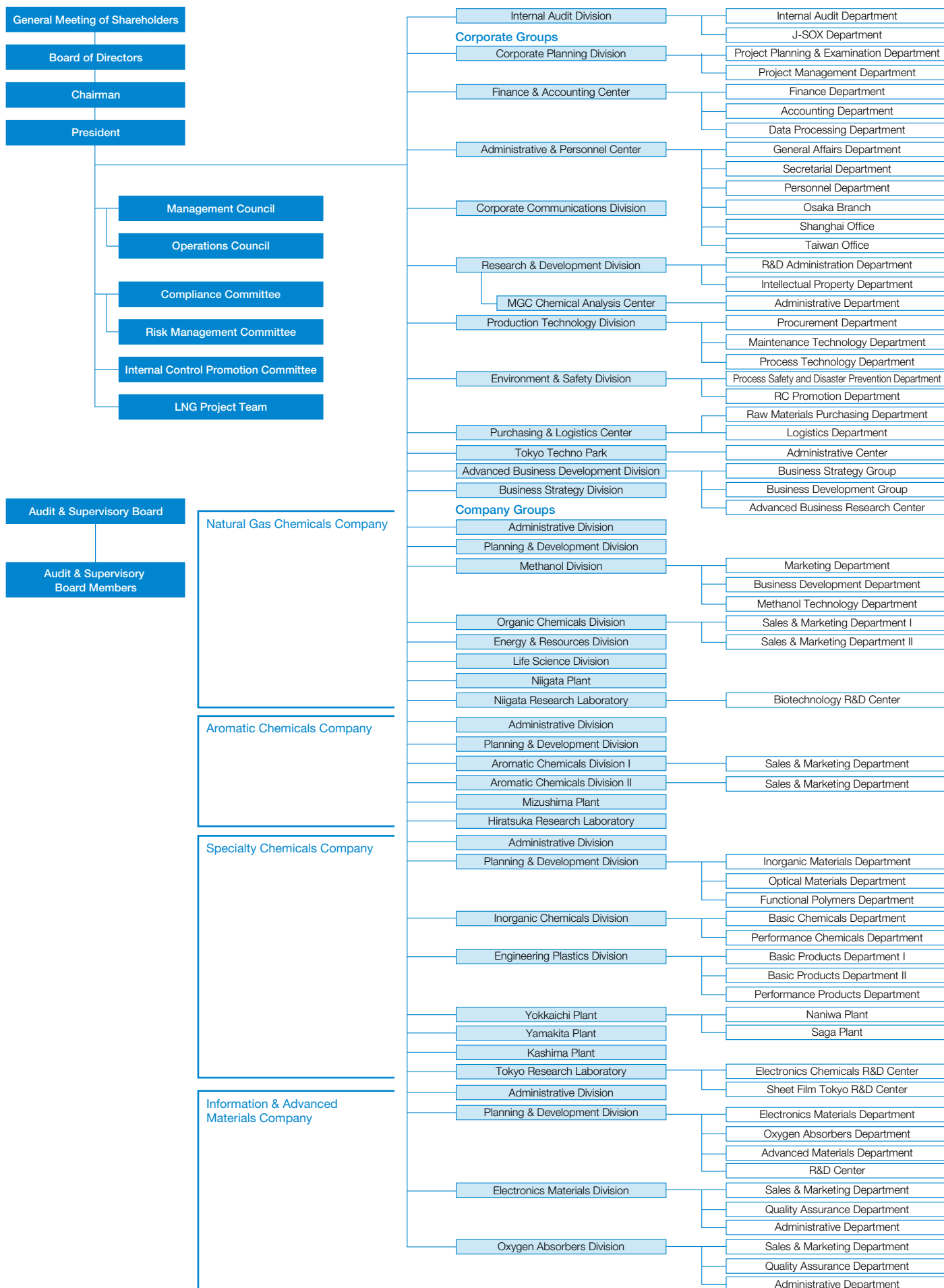
Takashi Kimura

Takayuki Watanabe

Katsuhiko Sugita

Yasuomi Matsuyama

ORGANIZATION CHART (as of July 1, 2017)



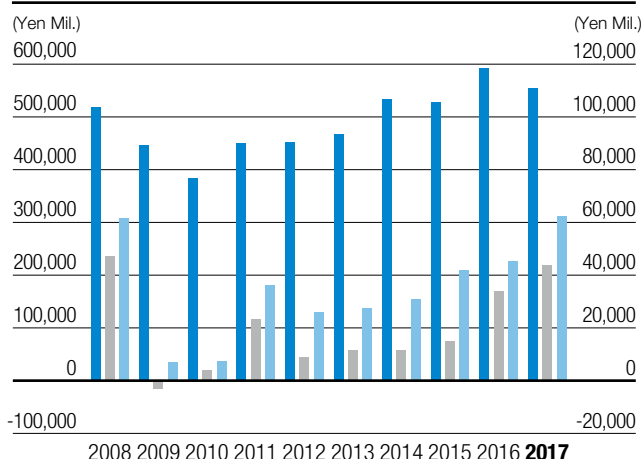
FINANCIAL HIGHLIGHTS

Mitsubishi Gas Chemical Company, Inc. and Consolidated Subsidiaries

| | Mar. 2008 | Mar. 2009 | Mar. 2010 |
|---|-----------|-----------|-----------|
| Net sales (Millions of yen) | 519,329 | 447,647 | 384,528 |
| Operating income (Millions of yen) | 47,366 | (3,103) | 4,090 |
| Ordinary income (Millions of yen) | 61,759 | 6,975 | 7,365 |
| Net income attributable to owners of the parent (Millions of yen) | 40,209 | 7,014 | 5,827 |
| Equity in earnings of affiliates (Millions of yen) | 21,312 | 14,706 | 8,794 |
| Total assets (Millions of yen) | 601,386 | 530,592 | 539,431 |
| Net assets (Millions of yen) | 312,021 | 272,083 | 278,094 |
| Operating activity cash flow (Millions of yen) | 40,394 | 49,027 | 31,326 |
| Investing activity cash flow (Millions of yen) | (20,907) | (41,253) | (33,662) |
| Financing activity cash flow (Millions of yen) | (22,251) | 11,541 | (15,354) |
| Total cash and cash equivalents at end of year (Millions of yen) | 37,235 | 53,065 | 36,048 |
| Basic net income per share (Yen)* | 174.02 | 30.61 | 25.78 |
| Diluted net income per share (Yen)* | 170.26 | 29.94 | 25.21 |
| Net assets per share (Yen)* | 1,308.49 | 1,171.80 | 1,191.13 |
| Return on equity (ROE) (%) | 13.7 | 2.5 | 2.2 |
| Return on assets (ROA) (%) | 10.2 | 1.2 | 1.4 |
| Operating income margin (%) | 9.1 | (0.7) | 1.1 |
| Equity ratio (%) | 50.3 | 49.9 | 49.9 |
| Number of employees | 4,686 | 4,902 | 4,920 |

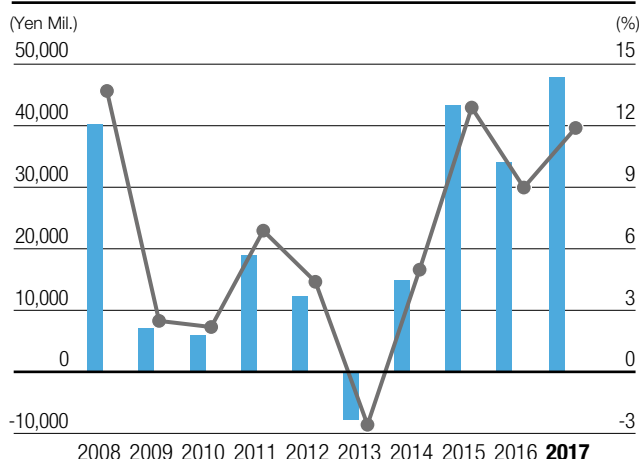
*With and effective date of October 1, 2016, MGC conducted a reverse stock split for MGC's ordinary shares on a 2:1 basis. As a result, each of the three amounts per share in the above table are calculated assuming that the reverse stock split had been conducted at the beginning of FY2007.

Net sales / Operating income / Ordinary income



■ Net sales ■ Operating income ■ Ordinary income

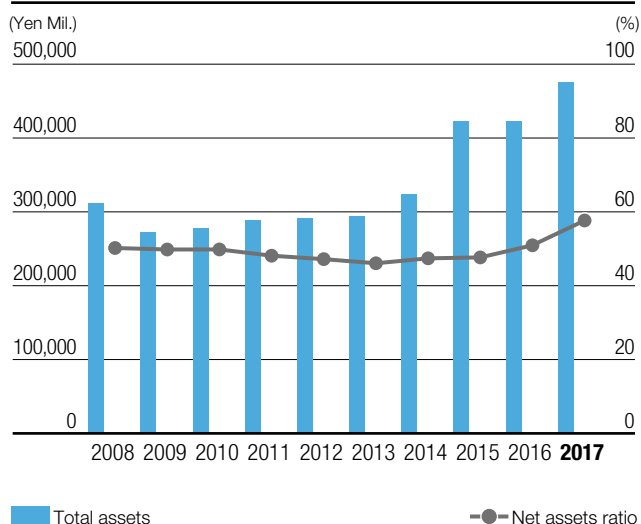
Net income attributable to owners of the parent / Return on equity (ROE)



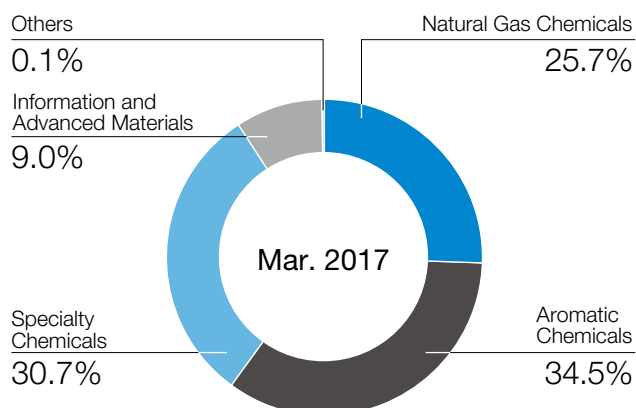
■ Net income attributable to owners of the parent ● Return on equity (ROE)

| | Mar. 2011 | Mar. 2012 | Mar. 2013 | Mar. 2014 | Mar. 2015 | Mar. 2016 | Mar. 2017 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|
| | 451,033 | 452,217 | 467,979 | 534,443 | 529,570 | 593,502 | 556,480 |
| | 23,363 | 9,083 | 11,421 | 11,488 | 14,996 | 34,018 | 43,762 |
| | 36,394 | 26,116 | 27,651 | 30,804 | 42,000 | 45,432 | 62,378 |
| | 18,950 | 12,327 | (7,793) | 14,921 | 43,346 | 34,134 | 47,958 |
| | 17,873 | 20,532 | 19,045 | 20,466 | 27,895 | 16,683 | 21,074 |
| | 577,045 | 595,250 | 613,908 | 657,838 | 790,784 | 739,582 | 741,639 |
| | 288,257 | 292,111 | 294,895 | 323,858 | 422,851 | 423,135 | 476,749 |
| | 39,773 | 37,348 | 31,169 | 27,182 | 76,982 | 84,671 | 82,711 |
| | (24,626) | (37,274) | (30,818) | (29,883) | (23,531) | (31,922) | (31,119) |
| | (1,849) | (9,876) | (14,356) | 7,124 | (25,005) | (47,335) | (60,217) |
| | 46,768 | 35,701 | 26,907 | 37,310 | 72,678 | 75,828 | 67,177 |
| | 83.85 | 54.56 | (34.50) | 66.07 | 191.94 | 153.85 | 221.57 |
| | 81.99 | 54.03 | — | — | — | — | — |
| | 1,230.50 | 1,246.92 | 1,256.81 | 1,382.52 | 1,672.25 | 1,707.01 | 1,983.60 |
| | 6.9 | 4.4 | (2.8) | 5.0 | 12.6 | 9.0 | 11.9 |
| | 6.5 | 4.5 | 4.6 | 4.8 | 5.8 | 5.9 | 8.4 |
| | 5.2 | 2.0 | 2.4 | 2.1 | 2.8 | 5.7 | 7.9 |
| | 48.2 | 47.3 | 46.2 | 47.5 | 47.8 | 51.0 | 57.7 |
| | 4,979 | 5,216 | 5,323 | 5,445 | 8,254 | 8,176 | 8,034 |

Net assets / Equity ratio



Sales by segment



CORPORATE HISTORY

| Year | History | |
|-----------|--|---|
| 1910-1940 | <p style="text-align: center;">Mitsubishi Edogawa Chemical Co., Ltd.</p> <p>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.</p> <p>1927 Begins production of formalin for the first time in Japan.</p> <p>1930 Establishes Osaka Plant.</p> <p>1933 Establishes Yamakita Plant; begins production of hydrogen peroxide using the electrolytic method for the first time in Japan.</p> <p>1937 Begins production of laminate material for printed wiring boards for the first time in Japan.</p> | <p style="text-align: center;">Japan Gas Chemical Co., Inc.</p> |
| 1950 | <p>1951 Establishes Naniwa Plant.</p> <p>1954 Takes a stake in Toyo Kagaku Industries, Inc. (current Toyo Kagaku, Inc.).</p> | <p>1951 Japan Gas Chemical Co., Inc. is established; establishes Enoki Plant; acquires natural gas assets.</p> <p>1952 Begins production of methanol from natural gas for the first time in Japan.</p> <p>1954 Lists shares on the Tokyo Stock Exchange. Establishes Osaka Office (current Osaka Branch).</p> <p>1957 Establishes Matsuhama Plant; begins production of ammonia from natural gas for the first time in Japan.</p> <p>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.)</p> |
| 1960 | <p>1961 Begins production of polycarbonate lupilon using interfacial polymerization.</p> <p>1962 Changes the name to Mitsubishi Edogawa Chemical Co., Ltd. Begins production of hydrogen peroxide for electronics industry use.</p> <p>1963 Establishes Yokkaichi Plant; begins commercial production of hydrogen peroxide using the company's proprietary technology (anthraquinone method).</p> <p>1966 Takes a stake in Japan Circuit Industrial Co., Ltd.</p> | <p>1960 Nihon Plastic and Chemical Co., Ltd. establishes Mizushima Plant, which later becomes a Japan Gas Chemical plant in 1961 through merger.</p> <p>1962 Establishes Japan Styrene Paper Corporation (current JSP Corporation). Establishes Japan Pure Hydrogen Co., Ltd. (current Japan Pionics Co., Ltd.)</p> <p>1963 Establishes Hiratsuka Research Laboratory.</p> <p>1968 Establishes A.G. International Chemical Co., Inc. Begins production of high-purity meta-xylene for the first time in the world.</p> |
| 1970 | <p>1970 Relocates the corporate research laboratory to Kanamachi (current Tokyo Research Laboratory).</p> <p>1971 Begins production of polycarbonate sheet based on the extrusion method.</p> <p style="text-align: center;">Oct. 1971 Mitsubishi Gas Chemical Company, Inc. is established in an equal merger</p> <p style="text-align: center;">Mitsubishi Gas Chemical Company, Inc.</p> <p>1977 Begins production of AGELESS oxygen absorber; establishes Kashima Plant.</p> | <p>1970 Establishes Mizushima Aroma Co., Ltd. Begins production of MXDA.</p> <p style="text-align: center;">Major Affiliates</p> <p>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.</p> <p>1979 Establishes Japan Saudi Arabia Methanol Co., Inc.</p> |

| Year | History | |
|-------|--|--|
| 1980 | <p>1981 Begins production of polyacetal.</p> <p>1984 Begins production of MX nylon.</p> <p>1986 Establishes Saga Plant.</p> | <p>1980 Establishes SAUDI Methanol Company(AR-RAZI).</p> <p>1982 Establishes Mitsubishi Gas Chemical Singapore Pte. Ltd.</p> <p>1984 Establishes Mitsubishi Gas Chemical America, Inc.</p> <p>1987 Establishes Korea Engineering Plastics Co., Ltd. Establishes PT Peroksida Indonesia Pratama.</p> <p>1989 Establishes Samyoung Pure Chemicals Co., Ltd.</p> |
| 1990 | <p>1991 Begins production of lens monomer; changes Japanese company name.</p> <p>1997 Declares the Implementation of Responsible Care.</p> | <p>1990 Establishes Mitsubishi Gas Chemical Europe GmbH.</p> <p>1991 Establishes MGC Electrotechno Co., Ltd.</p> <p>1992 Establishes Metanol de Oriente, METOR, S.A. (METOR).</p> <p>1994 Establishes Mitsubishi Engineering-Plastics Corporation.</p> <p>1995 Establishes MGC Pure Chemicals America, Inc. Establishes Thai Polyacetal Co., Ltd.</p> <p>1996 Establishes Thai Polycarbonate Co., Ltd.</p> <p>1997 Establishes MGC Pure Chemicals Singapore Pte. Ltd.</p> <p>1999 Establishes Yonezawa Dia Electronics Co., Inc.</p> |
| 2000- | <p>2000 Introduces internal company system.</p> <p>2001 Establishes Electronics Chemicals R&D Center under Tokyo Research Laboratory. All business locations are made ISO 14001 compliant.</p> <p>2003 Introduces executive officer system.</p> <p>2005 Establishes Shanghai Office. Changes the name of Tokyo Plant to Tokyo Development Center. Establishes MGC Chemical Analysis Center.</p> <p>2007 Establishes Sheet Film Tokyo R&D Center under Tokyo Research Laboratory.</p> <p>2009 Tokyo Techno Park established; Tokyo Research Laboratory and MGC Chemical Analysis Center placed under it;operation of Tokyo Development Center discontinued</p> <p>2010 Establishes Taiwan Office.</p> <p>2015 Medium-term management plan "MGC Advance 2017" Announced</p> <p>2017 Establishes QOL Innovation Center Shirakawa</p> | <p>2000 Establishes MGC Pure Chemicals Taiwan, Inc. Establishes Kyodo Kasankasuiso Corporation.</p> <p>2002 Establishes Ageless (Thailand) Co., Ltd. Establishes MGC Advanced Polymers, Inc.</p> <p>2005 Establishes MGC Filsheet Co., Ltd.</p> <p>2006 Establishes Brunei Methanol Company Sdn. Bhd. Establishes MGC Trading (Thailand) Ltd.</p> <p>2008 Establishes Suzhou MGC Suhua Peroxide Co., Ltd. Establishes Mitsubishi Gas Chemical Shanghai Commerce Ltd.</p> <p>2009 Establishes Mitsubishi Gas Chemical Engineering-Plastics (Shanghai) Co., Ltd.</p> <p>2012 Establishes MGC Electrotechno (Thailand) Co., Ltd.</p> <p>2013 Establishes Caribbean Gas Chemical Ltd.</p> <p>2015 JSP Corp. gained as consolidated subsidiary via takeover bid.</p> |

AWARD-WINNING TECHNOLOGIES

| Theme | Year | Award | Organizer |
|--|------|--|---|
| Methanol synthesis from natural gas | 1955 | Fuel Association Award | Fuel Association |
| A contact reformer for hydrogen carbonate | 1958 | Okochi Memorial Prize for Production | Okochi Memorial Foundation |
| | 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 |
| Technology related to the manufacture of Hydrogen peroxide through a method of automatic oxidization | 1965 | Chemical Technology Award | The Chemical Society of Japan |
| | 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 |
| The separation of isomers of xylene | 1969 | The Japan Petroleum Institute Award | The Japan Petroleum Institute |
| | 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 | 1971 | 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 | 1976 | The Ichimura Industrial Prize | The New Technology Development Foundation |
| The development of the oxygen absorber/AGELESS | 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. |
| | 1993 | First Century Anniversary Award | Agricultural Research & Development Association |
| | 1995 | Food Industry Distinguished Service Award | Japan Food Journal Co., Ltd. |
| | 2000 | 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 |
| The development and industrialization of production technology for aromatic aldehydes used to produce Trimellitic anhydride and Pyromellitic dianhydride | 1987 | The SCEJ Technical Achievement Award | The Society of Chemical Engineers, Japan |
| | 1987 | The Japan Petroleum Institute Award | The Japan Petroleum Institute |
| | 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 |

| Theme | Year | Award | Organizer |
|---|------|---|--|
| 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 polyacetal | 1991 | The Ichimura Industrial Prize | The New Technology Development Foundation |
| | 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 |
| | 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 aromatic hydrocarbons | 1995 | Bio Tsukuba Award | Tsukuba Foundation for Chemical and Bio-Technology |
| | 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 | The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology: The Prize for Science and Technology | Ministry of Education, Culture, Sports, Science and Technology-Japan |
| 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) |
| New Oxygen Absorbing Resin "OXY-CAPT" Characteristics and Applications | 2013 | Best Presentation Award | Japan Packaging Institute |
| Development of Oxygen Scavenger Packaging Material in Dry Condition | 2014 | Best Presentation Award | Japan Packaging Institute |
| | 2015 | Best Presentation Award | Japan Packaging Institute |
| | 2016 | Best Presentation Award | Japan Packaging Institute |
| Development of High-refractive-index and Low-double-refraction Special Polycarbonate Resin | 2016 | JCIA Technology Award: Grand Prize | Japan Chemical Industry Association |
| | 2016 | Chemical Technology Award | The Chemical Society of Japan |
| | 2016 | The Ichimura Industrial Prize: The Ichimura Prize in Industry for Outstanding Achievement | The New Technology Development Foundation |
| Oxyvanish: Oxygen Scavenger Packaging Material in Dry Condition | 2017 | WorldStar Packaging Awards: Pharmaceutical & Medical winner | World Packaging Organization |

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 methyl formate
- Production process for dimethyl formamide
- Production process for hydrogen (from methanol)
- Production process for super-pure hydrogen peroxide
- Production process for 2,6-naphthalenedicarboxylic acid dimethyl ester
- Production process for hexamine
- Production process for formalin
- Production process for methylamine
- Production process for electronics industry hybrid chemicals
- Production process for acetone cyanhydrin
- Production process for hydrogen peroxide
- Technology for separation and isomerization of xylene
- Production process for oxalic acid
- Production process for sodium hydrosulfite
- Production process for 2,3,6-trimethylphenol
- Production process for neopentyl glycol
- Production process for polyacetal
- Production process for methyl methacrylate
- Production process for dimethylacetamide
- Production process for chemical polishing agent
- Production process for carbon monoxide (from methanol)
- Production process for plasticizers (DOP/DIDP/DINP)
- Production process for dimethyl ether
- Production process for hydrazine hydrates
- Production process for copper clad laminates
- Production process for trimethylol propane
- Production process for paraformaldehyde
- Production process for polycarbonate
- Production process for methanol
- Production process for oxygen absorbers

PRODUCTS OF MGC GROUP

| Product | Applications | Contact | Telephone |
|---|---|-------------------------------|----------------|
| Basic chemicals (amine) | | | |
| Formamide | Pharmaceuticals, agricultural chemicals | Organic Chemicals Division | 81-3-3283-4784 |
| Dimethylacetamide | High grade solvent, pharmaceuticals, agricultural chemicals | | 81-3-3283-4746 |
| Dimethylaminoethanol | Flocculating agent, ion-exchange resin, urethane catalyst | | 81-3-3283-4746 |
| Dimethylformamide | High grade solvent | | 81-3-3283-4746 |
| Monomethylformamide | High grade solvent | | 81-3-3283-4746 |
| Monomethylamine | Rubber vulcanization accelerator, pharmaceuticals, agricultural chemicals, photographic chemicals, dye compound | | 81-3-3283-4746 |
| Dimethylamine | Fiber treatment agent, macromolecule flocculating, surfactant | | 81-3-3283-4746 |
| Trimethylamine | Crosslinker 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 | Paper durability enhancement agent | | 81-3-3283-4838 |
| Hexamine (hexamethylenetetramine) | Resin hardener, foaming agent, rubber vulcanization accelerator, pharmaceuticals | | 81-3-3283-4731 |
| Basic chemicals (methacrylic acid) | | | |
| 2-Hydroxyisobutyric acid methyl ester | High grade solvent, photographic chemicals, pharmaceuticals, agricultural chemicals | Organic Chemicals Division | 81-3-3283-4784 |
| Methacrylic acid | Coating compounds, adhesive agent, adhesive modifier | | 81-3-3283-4784 |
| Allyl methacrylate | Coating compounds, AS adhesive modifier, silane coupling agent | | 81-3-3283-4784 |
| 2-Ethylhexyl methacrylate | Coating compounds, adhesive agent, fiber treatment agent | | 81-3-3283-4784 |
| Glycidyl methacrylate | Coating compounds, antistatic additive, ion-exchange resin | | 81-3-3283-4784 |
| Diethylaminoethyl methacrylate | Antistatic additive, dyeing assistant, coating compounds | | 81-3-3283-4784 |
| Cyclohexyl methacrylate | Optical polymers, adhesive agent, coating compounds | | 81-3-3283-4784 |
| Dimethylaminoethyl methacrylate | Antistatic additive, flocculating agent, paper durability enhancement agent | | 81-3-3283-4784 |
| Stearyl methacrylate | Fiber treatment agent, coating compounds, adhesive compound | | 81-3-3283-4784 |
| 2-Hydroxyethyl methacrylate | Coating compounds, photosensitive resins, contact lens | | 81-3-3283-4784 |
| i-Butyl methacrylate | Coating compounds, printing ink, fiber treatment agent | | 81-3-3283-4784 |
| n-Butyl methacrylate | Coating compounds, lubricating oil additive, surface treatment agent | | 81-3-3283-4784 |
| Methacrylate blend | Coating resins, adhesive modifier | | 81-3-3283-4784 |
| Benzyl methacrylate | Optical polymers, adhesive agent, coating compounds | | 81-3-3283-4784 |
| Methyl methacrylate | Acrylic board, molding compound, coating compounds | | 81-3-3283-4784 |
| Lauryl methacrylate | Coating compounds, adhesive agent | | 81-3-3283-4784 |
| s-Lauryl methacrylate | Coating compounds, adhesive agent, lubricating oil additive | | 81-3-3283-4784 |
| Basic chemicals (polyol) | | | |
| Glycol esters | UV cure resin | Organic Chemicals Division | 81-3-3283-4791 |
| Dioxane glycol | UV cure resin, polyurethane | | 81-3-3283-4791 |
| di-Trimethylol propane | UV cure resin, polyurethane, ester for lubricant | | 81-3-3283-4791 |
| Spiroglycol | Polyester, polyurethane, UV cure resin, modifying agent for synthetic resin | | 81-3-3283-4791 |
| Trimethylolethane | Resin for alkyd paint, titanium oxide surface treatment agent | | 81-3-3283-4791 |
| Trimethylolpropane | Resin for alkyd paint, polyurethane, UV cure resin, ester for lubricant | | 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 | Aromatic Chemicals Division I | 81-3-3283-4817 |
| para-Ethylbenzaldehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, Additives for resin, electronic materials | | 81-3-3283-4817 |
| Cuminaldehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | | 81-3-3283-4817 |
| 2,4-Dimethylbenzaldehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | | 81-3-3283-4817 |
| 3,4-Dimethylbenzaldehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | | 81-3-3283-4817 |
| 2,4,6-Trimethylbenzaldehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | | 81-3-3283-4817 |
| para-Tolualdehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | | 81-3-3283-4817 |
| n-Propylbenzaldehyde (NPBAL) | Synthesis fragrances, Pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | | 81-3-3283-4817 |
| para-Phenylbenzaldehyde | Synthesis fragrances, pharmaceuticals, agricultural chemicals, pigment, additives for resin, electronic materials | 81-3-3283-4817 | |

| Product | Applications | Contact | Telephone |
|--|---|--|----------------|
| Basic chemicals (aromatic carboxylic acid) | | | |
| Purified isophthalic acid | Modifying polyester | Aromatic Chemicals Division II | 81-3-3283-4808 |
| Cyclohexane-1,2,4-tricarboxylic acid | Resin modifier | Aromatic Chemicals Company, Planning & Development Division | 81-3-3283-4815 |
| Cyclohexane-1,2,4-tricarboxylic acid-1,2-anhydride | Epoxy resin hardener, resin modifier | | 81-3-3283-4815 |
| Phthalic anhydride | Plasticizer, coating compounds, unsaturated polyester | Aromatic Chemicals Division II | 81-3-3283-4917 |
| Basic chemicals | | | |
| Isophthalonitrile | Synthetic resin | Aromatic Chemicals Division I | 81-3-3283-4754 |
| Ortho-xylene | Phthalic anhydride, synthetic resin | Aromatic Chemicals Division II | 81-3-3283-4917 |
| 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 | 81-3-3283-4917 |
| Para-xylene | Terephthalic acid, synthetic resin | | 81-3-3283-4808 |
| 1,3-Bis (Aminomethyl) cyclohexane | Epoxy resin hardener, organic synthesis, intermediary substance | Aromatic Chemicals Division I | 81-3-3283-4800 |
| Meta-xylene | Agricultural chemicals-pigment | Aromatic Chemicals Division II | 81-3-3283-4808 |
| Meta-xylenediamine | Synthetic resin, epoxy resin hardener, organic synthesis intermediate | Aromatic Chemicals Division I | 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 | Methanol Division | 81-3-3283-4771 |
| Formalin | Plywood binding agent, synthetic resin, vinylon, hexamine, pentaerythritol, paraform, pharmaceuticals | Organic Chemicals Division | 81-3-3283-4731 |
| Formalol M | Coating compounds | | 81-3-3283-4731 |
| Formalol IB | Coating compounds | | 81-3-3283-4731 |
| Formalol NB | Coating compounds | | 81-3-3283-4731 |
| Methyl formate | Casting hardener, CO source | | 81-3-3283-4746 |
| Dimethyl ether (for aerosol propellant) | Aerosol propellant | | 81-3-3283-4838 |
| Paraform (paraformaldehyde) | Coating compounds, adhesive agent, textile-processing resins, phenol resins | | 81-3-3283-4731 |
| Hydrogen peroxide | Bleaching agent for textiles, paper and pulp, other industrial applications | Inorganic Chemicals Division, Basic Chemicals Department | 81-3-3283-4759 |
| Formic acid | Dyeing assistant, pharmaceuticals, tanning | Fine Chemicals Sales & Marketing Division Ryoko Chemical Co., Ltd. | 81-3-6861-0054 |
| Oxalic acid | Alumite oxidizing film-forming agent, confectionery manufacture, synthetic resin, rare earth, dyeing assistant, pharmaceutical, pharmaceuticals | | 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 |
| Organic titanates | | | |
| Tetraisopropyl titanate | Catalyzer, crosslinking agent, surface reforming agent, coupling agent | Inorganic Chemicals Division, Basic Chemicals Department | 81-3-3283-4759 |
| Tetra-n-butyl titanate | Catalyzer, crosslinking agent, surface reforming agent, coupling agent | | 81-3-3283-4759 |
| Triethanol aminato titanium | Catalyzer, crosslinking agent, surface reforming agent, coupling agent | | 81-3-3283-4759 |
| 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 |
| Octylene glycol titanate | Catalyzer, crosslinking agent, surface reforming agent, coupling agent | | 81-3-3283-4759 |
| Tetraoctyl titanate | Catalyzer, crosslinking agent, surface reforming agent, coupling agent | | 81-3-3283-4759 |
| Inorganic salts | | | |
| Ammonium persulfate | Synthetic resin polymerization catalyst, etching agent, adhesive removal agent | Inorganic Chemicals Division, Basic Chemicals Department | 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 | | 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) | Bleaching, oxidant, detergent, oxygen generator | Ryoko Chemical Co., Ltd. | 81-3-6861-0050 |
| Ammonium sulfate | Fertilizer | Organic Chemicals Division | 81-3-3283-4838 |

PRODUCTS OF MGC GROUP







| Product | Applications | Contact | Telephone |
|---|---|--|----------------------|
| Plastics/monomers/resin hardener | | | |
| ALTESTER (heat-resistant PET resin) | Industrial and food packaging materials, optical sheets and films | Organic Chemicals Division | 81-3-3283-4902 |
| Optimas (high-performance acrylic polymer) | Light guide plate, protective cover for liquid crystal, lenses, automotive components, optical sheets and films | | 81-3-3283-4906 |
| Cytester (thermosetting monomer) | Adhesive agents, insulating materials, various binder plastics, coating compounds | | 81-3-3283-4777 |
| Nylon-MXD6 (N-MXD6) | Molding compound, packaging materials (gas barrier film, sheet and PET bottle) | Aromatic Chemicals Division I | 81-3-3283-4799 |
| Gaskamine 240 | Epoxy resin hardener | | 81-3-3283-4754 |
| Gaskamine 328 | Epoxy resin hardener | | 81-3-3283-4754 |
| TETRAD-C | Coating compound, adhesive agent, cast molding, cross-linker | | 81-3-3283-4754 |
| TETRAD-X | Coating compound, adhesive agent, cast molding, cross-linker | | 81-3-3283-4754 |
| MAXIVE (gas barrier epoxy-based resin) | Laminate adhesive, coating, anti-corrosive paint | Aromatic Chemicals Division | 81-3-3283-4815 |
| 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 | Engineering Plastics Division Performance products Department | 81-3-3283-4853 |
| Lumiplus | Optical material | Specialty Chemicals Company, Planning & Development Division | 81-3-3283-4869 |
| DIAPURESTE (adamantane derivatives) | Photoresist monomer | Inorganic Chemicals Division, Basic Chemicals Department | 81-3-3283-4759 |
| Lens monomer | Monomer for ultra-high refractive plastic glasses lenses | | 81-3-3283-4759 |
| BT Resin | Insulating materials, printed circuit board materials, insulating varnish, coating compounds, adhesive agent | Electronics Materials Division | 81-3-3283-4740 |
| Nikanol (xylene resin) | Acrylic Adhesive, epoxy resin modifier | Fudow Co., Ltd. | 81-45-548-4210 |
| Special polycarbonates | | | |
| Iupizeta EP series (special polycarbonates) | Optical lens, optical films and sheets | Engineering Plastics Division Performance products Department | 81-3-3283-4798 |
| Iupizeta FPC series (special polycarbonates) | Electrophotography photoreceptor, various binder, film, sheet, optical use, various electronic device part | | 81-3-3283-4798 |
| Iupizeta PCZ series (special polycarbonates) | Electrophotography photoreceptor, various binder, film, sheet, optical use, various electronic device part | | 81-3-3283-4798 |
| Engineering plastic | | | |
| Iupilon (polycarbonate) | Electrical and electronic components, OA equipment, camera, automotive, optical disk, dialysis treatment equipment, building materials, miscellaneous goods | Mitsubishi Engineering-Plastics Corporation | 81-3-6274-9000 |
| Iupiace (modified-polyphenylene ether) | OA equipment, electronic parts, automotive parts | | 81-3-6274-9000 |
| Iupital (polyacetal) | Functional parts (OA components, automotive, machine) | | 81-3-6274-9000 |
| Reny (high-performance polyamide) | Automotive components, machinery parts, electronic parts, fishing reel, nail, screw, bolt | | 81-3-6274-9000 |
| Sheets/films | | | |
| Neopulim (transparent polyimide film) | Printed circuit board material for various electronic devices | Aromatic Chemicals Company, Planning & Development Division | 81-3-3283-4816 |
| Polycarbonate sheet | Face plates, automotive components, machine parts, electronic parts, LCD front plates | Engineering Plastics Division Performance products Department | 81-3-3283-4798 |
| Polycarbonate film | Face plates, optical film for LCDs | | 81-3-3283-4798 |
| Plasticizers | | | |
| Diocetyl Isophthalate (DOIP) | Polyvinyl chloride plasticizer | CG Ester Corporation | 81-3-5203-2860 |
| Diisononyl Phthalate (DINP) | Polyvinyl chloride plasticizer | | 81-3-5203-2860 |
| n-Diioctyl phthalate (DOP) | Polyvinyl chloride plasticizer | | 81-3-5203-2860 |
| Dibutyl phthalate (DBP) | Polyvinyl chloride plasticizer | | 81-3-5203-2860 |
| Linevol phthalate (PL200) | Polyvinyl chloride plasticizer | | 81-3-5203-2860 |
| Triocetyl trimellitate | Polyvinyl chloride plasticizer | Aromatic Chemicals Division II | 81-3-3283-4917 |
| Health food ingredients | | | |
| Pyrrroquinoline quinone (PQQ) | Food | Life Science Division | 81-3-3283-4776 |
| S-adenosylmethionine (SAmE) | Food | | 81-3-3283-4776 |
| Environmental agents, water treatment agents and disinfectants | | | |
| CONTLIME | Inhibitor of slime, scale, legionella and corrosion | Dia Aqua Solutions Co. Inc. | 81-3-5224-4871 |
| DESLIME | Desliming agent, pipe cleaning agent | | 81-3-5224-4871 |
| Deo-Power | Deodorization of drainage and wastewater | | 81-3-5224-4871 |
| Peracetic acid | Oxidizing agent, bleaching agent, antibacterial agent | Inorganic Chemicals Division, Basic Chemicals Department | 81-3-3283-4759 |

| Product | Applications | Contact | Telephone |
|--|--|---|----------------|
| Electronic chemicals | | | |
| Super-pure hydrogen peroxide | Cleaner for electronics industry use, etching agent, resist stripping agent | Inorganic Chemicals Division, Basic Chemicals Department | 81-3-3283-4755 |
| Super-pure ammonium hydroxide | Cleaner for electronics industry use, etching agent | | 81-3-3283-4755 |
| ELM clean | Cleaner for semiconductor and flat-panel display, etching agent, resist stripping agent | Inorganic Chemicals Division, Performance Chemicals Department | 81-3-3283-4766 |
| Chemical polishing agent (clean etch series) | Abrasive compound for printed wiring board, etching agent, resist development and stripping agent, Metal-surface treatment agent | | 81-3-3283-4766 |
| Materials for printed wiring board | | | |
| High-performance epoxy material for multi-layered PWB | Printed wiring board | Electronics Materials Division | 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 | | 81-3-3283-4740 |
| BT materials for High Speed IC Plastic Package | Printed wiring board | | 81-3-3283-4740 |
| LE (lubricated entry) SHEET | Entry sheet for mechanical drilling of printed circuit boards | | 81-3-3283-4740 |
| Oxygen absorbers | | | |
| AGELESS (oxygen absorber) | Keep freshness, aroma, flavor and taste, prevention of mold, vermination, oxidation and discoloration | Oxygen Absorbers Division | 81-3-3283-4842 |
| AGELESS-OMAC (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 (calcium oxide desiccant) | Desiccant | | 81-3-3283-4842 |
| AGELESS EVA (alcohol generating agent) | Food quality control | | 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 | | | |
| MH-MD process (H ₂ gas and CO gas manufacturing device for methanol use) | High-purity hydrogen gas and CO gas production equipment | Methanol Division | 81-3-3283-4831 |
| Catalyzer | | | |
| Catalyzer (methanol synthesis) | Methanol synthesis | Methanol Division | 81-3-3283-4831 |
| Catalyzer (H ₂ -CO generation) | H ₂ -CO generation | | 81-3-3283-4831 |
| Others | | | |
| Diaprone (reducing agent for high fluidity concrete) | Reducing agent for high fluidity concrete | Natural Gas Chemicals Company, Planning&Development Division | 81-3-3283-4776 |

MAJOR GROUP COMPANIES

In Japan

 manufacturing/processing
  trading
  information/service
  distribution
  others

| Classification | Company name | Business description | Company | Address | Zip Code | Telephone |
|----------------|--|--|--|--|----------|----------------|
| | APPI GEOTHERMAL ENERGY CORPORATION | Development and provision of geothermal energy resources |  Natural Gas Chemicals Company | [Head office] 80-1, 39-chiwari, Dendo, Hachimantai-shi, Iwate | 028-7112 | 81-195-68-7332 |
| E | CG ESTER CORP. | Manufacturing and sales of plasticizers |  Aromatic Chemicals Company | [Head office] Landic Nihonbashi Building, 2-16-13 Nihonbashi, Chuo-ku, Tokyo | 103-0027 | 81-3-5203-2860 |
| | CULTIVECS INC. | Partnering and contract manufacturing of monoclonal antibody pharmaceuticals |  Natural Gas Chemicals Company | [Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo | 100-8324 | 81-3-3283-4901 |
| | DIA AQUA SOLUTIONS CO., INC. | Sales and technical service of water treatment agent |  Specialty Chemicals Company | [Head office] 5th Floor, Yurakucho Denki Building South-wing, 1-7-1 Yurakucho, Chiyoda-ku, Tokyo | 100-0006 | 81-3-5224-4871 |
| C | EIWA CHEMICAL INDUSTRY CO., LTD. | Manufacturing and sales of blowing agents |  Specialty Chemicals Company | [Head office] Daido Seimei Kyoto Building, 595-3 Sanjo-sagaru karasuma-dori, Nakagyo-ku, Kyoto-shi, Kyoto | 604-8161 | 81-75-256-5131 |
| C | FUDOW CO., LTD. | Manufacturing and sale of molding resins |  Aromatic Chemicals Company | [Head office] NMF Shin-yokohama Building, 2-15-16 Shin-yokohama, Kohoku-ku, Yokohama-shi, Kanagawa | 222-0033 | 81-45-548-4210 |
| E | GRANOPT CO., LTD. | Manufacturing and Sales of Magneto-optic Crystals |  Information & Advanced Materials Company | [Head office/plant] 4-4 Ougibuchi, Ougida, Noshiro-shi, Akita | 016-0122 | 81-185-70-1800 |
| | HACHIMANTAI GEOTHERMAL CORP. | Maintenance of steam facilities, environmental monitoring |  others | [Head office] 140 Kami-nakajima, Hanawa, Kazuno-shi, Akita | 018-5201 | 81-186-23-3861 |
| C | JAPAN FINECHEM CO., INC. | Manufacturing and sales of fine chemicals and electronic products |  Natural Gas Chemicals Company | [Head office] Uchisaiwaicho Tokyu Building, 1-3-2 Uchisaiwai-cho, Chiyoda-ku, Tokyo | 100-0011 | 81-3-5511-4600 |
| | JAPAN FORMALIN CO., INC. | Manufacturing and sale of formalin |  Natural Gas Chemicals Company | [Head office] 3-7-20 Nihonbashi, Chuo-ku, Tokyo | 103-0027 | 81-3-5203-7751 |
| C | JAPAN PIONICS CO., LTD. | Manufacturing and sales of gas purifier |  Natural Gas Chemicals Company | [Head office] 3-3-32 Tamura, Hiratsuka-shi, Kanagawa | 254-0013 | 81-463-53-8300 |
| E | JAPAN SAUDI ARABIA METHANOL CO., INC. | Business administration for AR-RAZI |  others | [Head office] Hibiya Kokusai Building, 2-2-3 Uchisaiwai-cho, Chiyoda-ku, Tokyo | 100-0011 | 81-3-3593-3541 |
| E | JAPAN U-PICA CO., LTD. | Manufacturing and sales of unsaturated polyester resins |  Corporate | [Head office] Madre Matsuda Building, 4-13 Kioi-cho, Chiyoda-ku, Tokyo | 102-0094 | 81-3-6850-0251 |
| C | JSP CORP. | Manufacturing and sales of foamed plastic |  Aromatic Chemicals Company | [Head office] Shin Nisseki Building, 3-4-2 Marunouchi, Chiyoda-ku, Tokyo | 100-0005 | 81-3-6212-6300 |
| | KAGAKU UNYU CO., LTD. | Transportation/storage |  Aromatic Chemicals Company | [Head office] 3-1-11 Mizushima-naka-dori Kurashiki-shi, Okayama | 712-8072 | 81-86-448-3655 |
| C | KINOE TERMINAL CO., LTD. | Storage terminal for methanol |  Natural Gas Chemicals Company | [Head office] Hibiya Kokusai Building, 2-2-3 Uchisaiwai-cho, Chiyoda-ku, Tokyo | 100-0011 | 81-3-3593-3035 |
| E | KOKUKA SANGYO CO., LTD. | Shipping |  Natural Gas Chemicals Company | [Head office] NBF Hibiya Building, 1-1-7 Uchisaiwai-cho, Chiyoda-ku, Tokyo | 100-0011 | 81-3-3596-3663 |
| C | KYODOU KASANKASUISO CORP. | Manufacturing of hydrogen peroxide |  Specialty Chemicals Company | [Head office/plant] 35 Higashi-wada, Kamisu-shi, Ibaraki | 314-0102 | 81-299-97-0785 |
| C | MARINE TRANSPORT AND TERMINAL CO., LTD. | Storage terminal for chemicals |  Natural Gas Chemicals Company | [Head office] 2881-30 Hamabe, Taroudai, Kita-ku, Niigata-shi, Niigata | 950-3101 | 81-25-255-2041 |
| | Meihan Shinku Kogyo Co., Ltd. | Surface Processing of Plastic Sheets & Films |  Specialty Chemicals Company | [Head office/plant] 106-1 Koyama, Kanan-cho, Minamikawachi-gun, Osaka | 585-0034 | 81-721-90-3223 |
| C | MGC ADVANCED CHEMICAL INC. | Manufacturing of life science-related materials |  Natural Gas Chemicals Company | [Head office] 4061-2 Tayuhama, Kita-ku, Niigata-shi, Niigata | 950-3112 | 81-25-259-7187 |











C=Consolidated subsidiary E=Equity method affiliate

| Classification | Company name | Business description | | Company | Address | Zip Code | Telephone |
|----------------|---------------------------------------|--|---|--|--|----------|----------------|
| | MGC AGELESS CO., LTD. | Manufacturing and technical support of oxygen absorbers |  | Information & Advanced Materials Company | [Head office] Ryowa Building, 3-6-1 Kanda-surugadai, Chiyoda-ku, Tokyo | 101-0062 | 81-3-3251-0761 |
| | MGC COMPUTER SERVICE CO., LTD. | Computer system service |  | Corporate | [Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo | 100-8324 | 81-3-3283-4845 |
| C | MGC ELECTROTECHNO CO., LTD. | Manufacturing of copper-clad laminates |  | Information & Advanced Materials Company | [Plant] 9-41 Yone-sugiyama, Nishigo-mura, Nishishirakawa-gun, Fukushima | 961-8031 | 81-248-25-5000 |
| | MGC ENGINEERING CO., LTD. | Engineering/maintenance |  | Natural Gas Chemicals Company | [Head office/plant] 1318 Tayuhama, Kita-ku, Niigata-shi, Niigata | 950-3112 | 81-25-259-2711 |
| C | MGC FILSHEET CO., LTD. | Manufacturing of polycarbonate sheets and films |  | Specialty Chemicals Company | [Head office/plant] 4-2242 Mikajima, Tokorozawa-shi, Saitama | 359-1164 | 81-42-948-2151 |
| | MGC LOGISTICS YAMAKITA CO., LTD. | Operation duties |  | Specialty Chemicals Company | [Head office] 950 Kishi, Yamakita-machi, Ashigarakami-gun, Kanagawa | 258-0112 | 81-465-75-2635 |
| | MGC PHARMA CO.,LTD. | Contract research and sample production for antibody drugs |  | Natural Gas Chemicals Company | [Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo | 100-8324 | 81-3-3283-4821 |
| E | MITSUBISHI ENGINEERING-PLASTICS CORP. | Manufacturing and sales of engineering plastics |  | Specialty Chemicals Company | [Head office] Shiodome Sumitomo Building, 1-9-2 Higashi-shinbashi, Minato-ku, Tokyo | 105-0021 | 81-3-6274-9000 |
| | MIZUSHIMA KASOZAI CO., LTD. | Manufacturing and sales of special plasticizer |  | Aromatic Chemicals Company | [Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo | 100-8324 | 81-3-3283-4733 |
| | MIZUSHIMA PARAXYLENE CO., LTD. | Manufacturing and sales of petrochemistry product |  | Aromatic Chemicals Company | [Head office] 2-6-3 Ote-machi, Chiyoda-ku, Tokyo | 100-8161 | 81-3-6275-5109 |
| | NISSHIN COLORING CO., LTD. | Coloration processing of plastic |  | Specialty Chemicals Company | [Head office] 2500-6 Ogohara, Komono-cho, Mie-gun, Mie | 510-1222 | 81-593-94-3100 |
| | NISSHIN UNYU CO., LTD. | Transportation/storage |  | Natural Gas Chemicals | [Head office] 1383 Tayuhama, Kita-ku, Niigata-shi, Niigata | 950-3112 | 81-25-259-3255 |
| | OSHIKA FORMALIN CO., LTD. | Sales of formalin |  | Natural Gas Chemicals Company | [Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo | 100-8324 | 81-3-3283-4773 |
| E | OTSUKA-MGC CHEMICAL CO., INC. | Manufacturing and sales of hydrazine hydrate |  | Specialty Chemicals Company | [Head office] Nihon-seimei Yodoyabashi Building, 3-5-29 Kitahama, Chuo-ku, Osaka-shi, Osaka | 541-0041 | 81-6-4706-7562 |
| C | POLYOLS ASIA CO., INC. | Manufacturing and sales of polyhydric alcohols |  | Natural Gas Chemicals Company | [Head office] Mitsubishi Building, 2-5-2 Marunouchi, Chiyoda-ku, Tokyo | 100-8324 | 81-3-3283-4825 |
| C | QOL Business Facility Inc. | Administration of QOL Innovation Center Shirakawa |  | Information & Advanced Materials Company | [Head office] 1-8 Toyochianaigoya, Shirakawa-shi, Fukushima | 961-0005 | 81-248-24-9001 |
| E | RYODEN KASEI CO., LTD. | Manufacturing and sales of insulating materials |  | Specialty Chemicals Company | [Head office/plant] 2-6-1 Miwa, Sanda-shi, Hyogo | 669-1513 | 81-79-562-6801 |
| C | RYOKO CHEMICAL CO., LTD. | Sale of chemicals for general industry use and packing materials |  | Corporate | [Head office] PMO Nihonbashi-honcho Building, 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 |
| | RYOUTOU UNYU SOUKO CO., LTD. | Transportation/storage |  | Information & Advanced Materials Company | [Head office] 5-13-3 Nijjuku, Katushika-ku, Tokyo | 125-0051 | 81-3-3607-1205 |
| C | RYOWA ENTERPRISE CO., LTD. | Property management, travel agency, business support |  | 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

MAJOR GROUP COMPANIES







 manufacturing/processing
  trading
  information/service
  distribution
  others

| Classification | Company name | Business description | Company | Address | Zip Code | Telephone |
|----------------|---|---|--|--|----------|----------------|
| C | RYOYO TRADING CO., LTD. | Sales of chemical products/insurance agent |  Corporate | [Head office] 7F, Hibiya Building, 1-1, Shimbashi 1-chome Minato-ku, Tokyo | 105-0004 | 81-3-3506-3750 |
| | RYOYU INDUSTRIAL CORP. | Manufacture of flat heaters |  Natural Gas Chemicals Company | [Head office] 192-5 Inamasu, Itakura-ku, Joetsu-shi, Niigata | 944-0101 | 81-255-78-2945 |
| | SHINSANSO KAGAKU CO. | Manufacturing of hydrogen peroxide |  Specialty Chemicals Company | [Head office/plant] 148-58 Yufutsu, Tomakomai-shi, Hokkaido | 059-1372 | 81-144-55-7337 |
| E | TOHO EARTHTECH, INC. | Manufacturing and sales of natural gas and iodine, Seismic reinforcement work |  Natural Gas Chemicals Company | [Head office] 1450 Kurotori, Nishi-ku, Niigata-shi, Niigata | 950-1123 | 81-25-377-7131 |
| C | TOKYO SHOKAI, LTD. | Sales of synthetic resins and electronic materials |  Corporate | [Head office] Ryowa Building, 3-6-1 Kanda-surugadai, Chiyoda-ku, Tokyo | 101-0062 | 81-3-3251-0171 |
| C | TOYO KAGAKU CO., LTD. | Manufacturing and sales of plastic injection molding |  Specialty Chemicals Company | [Head office/plant] 51-497 Morowa-doudou, Togo-cho, Aichi-gun, Aichi | 470-0151 | 81-561-39-0531 |
| | YAMADA KASEI CO., LTD. | Manufacturing and sales of chemical products and synthetic resins |  Corporate | [Head office] Yamada Building, 2-8-4 Uchikanda, Chiyoda-ku, Tokyo | 101-0047 | 81-3-3256-7861 |
| C | YONEZAWA DIA ELECTRONICS CO., INC. | Manufacturing and sales of printed circuit boards |  Information & Advanced Materials Company | [Head office] 3-446-3 Hachimanbara, Yonezawa-shi, Yamagata | 992-1128 | 81-238-28-1345 |
| | YUTAKA CHEMICAL CORP. | Manufacturing and sales of formaline |  Natural Gas Chemicals Company | [Head office] St. Luke Tower, 8-1 Akashi-cho, Chuo-ku, Tokyo | 104-0044 | 81-3-5148-7134 |
| | YUZAWA GEOTHERMAL POWER CORP. K.K. | Development and provision of geothermal energy resources |  Natural Gas Chemicals Company | [Head office] 99-7, Yamagishi, Akinomiya Yuzawa-shi, Akita | 019-0321 | 81-183-55-2555 |

C=Consolidated subsidiary E=Equity method affiliate

Overseas

 manufacturing/processing
  trading
  information/service
  distribution
  others

| Classification | Company name | Business description | Company | Address | Zip Code | Country | Telephone |
|----------------|---|--|--|---|----------|--------------------------|-----------------|
| | AGELESS (THAILAND) CO., LTD. | Manufacturing and sales of oxygen absorbers |  Information & Advanced Materials Company | [Head office/plant] 700/323 Moo6, Amatanakorn Industrial Estate, Tumbol, Don Hua Lor Muang Chonburi District, Chonburi | | Thailand | 66-38-458-351 |
| E | BRUNEI METHANOL COMPANY SDN. BHD. | Manufacturing and sales of methanol |  Natural Gas Chemicals Company | [Head office] Sungai Liang Industrial Park (SPARK) Kg. Sungai Liang Daerah Belait | KC1135 | Negara Brunei Darussalam | 673-322-9300 |
| | CARIBBEAN GAS CHEMICAL LTD. | Manufacturing and sales of methanol |  Natural Gas Chemicals Company | [Head office] 63 Park Street, Port of Spain in the Island of Trinidad, Trinidad and Tobago | | Trinidad and Tobago | 1-868-665-5337 |
| E | KOREA ENGINEERING PLASTICS CO., LTD. | Manufacturing and sales of polyacetal resins |  Specialty Chemicals Company | [Head office] 119 Mapo-daero, Mapo-gu, Seoul | 4144 | Korea | 82-2-707-6840 |
| C | JSP INTERNATIONAL GROUP LTD. | Manufacturing and sales of foam polypropylene beads, foam polyethylene beads and molding |  Aromatic Chemicals Company | [Head office] 1285 Drummers Lane, Suite 301, Wayne, PA | 19087 | U.S.A. | 1-610-651-8600 |
| E | METANOL DE ORIENTE, METOR, S.A. | Manufacturing and sales of methanol |  Natural Gas Chemicals Company | [Head office] Jose Petrochemical Complex, Jose-Estado, Anzoategui-Venezuela-Apdo, Postal 5077 P.L.C.-C.P.6023 | | Venezuela | 58-281-420-8851 |
| C | MGC ADVANCED POLYMERS, INC. | Manufacturing and sales of nylons |  Aromatic Chemicals Company | [Head office/plant] 1100 Port Walthall Drive, Colonial Heights, VA | VA 23834 | U.S.A. | 1-804-520-7800 |

C=Consolidated subsidiary E=Equity method affiliate

| Classification | Company name | Business description | Company | Address | Zip Code | Country | Telephone |
|----------------|---|---|--|---|---------------|-------------------------|----------------------|
| C | MGC ELECTROTECHNO (THAILAND) CO.,LTD. | Manufacturing of copper clad laminates |  Information & Advanced Materials Company | [Head office/plant] 500/128 Moo3, Tambol Tasit, Amphur Plaak Daeng, Rayong Province 21140 | | Thailand | 66-38-950-470 |
| C | MGC MONTNEY HOLDINGS LTD. | Investment on shale gas-LNG project |  others Corporate | [Head office] PO Box 49314, Suite 2600, Three Bentall Centre, 595 Burrard Street, Vancouver | BC V7X 1L3 | Canada | — |
| C | MGC PURE CHEMICALS AMERICA, INC. | Manufacturing and sales of ultra-pure hydrogen peroxide |  Specialty Chemicals Company | [Head office] 6560 South Mountain Road, Mesa, AZ | AZ 85212-9716 | U.S.A. | 1-480-987-9100 |
| C | MGC PURE CHEMICALS SINGAPORE PTE. LTD. | Manufacturing and sales of ultra-pure hydrogen peroxide/Super-pure ammonium hydroxide/ Chemical polishing agent |  Specialty Chemicals Company | [Head office/plant] 29 Tuas West Road | 638428 | Singapore | 65-6897-8971 |
| C | MGC PURE CHEMICALS TAIWAN, INC. | Manufacturing and sales of ultra-pure Hydrogen peroxide |  Specialty Chemicals Company | [Head office/plant] Chung Kang Economic Processing Zone, 12 Jing 1st Road, Wuchi District, Taichung 435 | | Taiwan | 886-4-2658-4466 |
| | MGC TRADING (THAILAND) LTD. | Sales of chemical products in Asia |  Corporate | [Head office] 18th Floor, Unit 1810, Empire Tower, No. 1 South Sathorn Rd, Yannawa, Sathorn, Bangkok 10120, Thailand | 10120 | Thailand | 66-2-670-3417 |
| C | MITSUBISHI GAS CHEMICAL AMERICA, INC. | Sales of chemical products/functional products in USA |  Corporate | [Head office] 24th Floor, 655 Third Avenue, New York, NY | NY10017 | U.S.A. | 1-212-687-9030 |
| C | MITSUBISHI GAS CHEMICAL ENGINEERING-PLASTICS (SHANGHAI) CO., LTD. | Manufacturing and sales of polycarbonate resin |  Specialty Chemicals Company | [Head office] Shanghai Chemical industry Park , 55 Mu Hua Road, Shanghai | 201507 | China | 86-21-3127-3366 |
| | MITSUBISHI GAS CHEMICAL EUROPE GMBH | Sales of aromatic chemicals/ functional products in Europe |  Corporate | [Head office] 13 Immermannstr. Dusseldorf | 40210 | Germany | 49-211-363080 |
| | MITSUBISHI GAS CHEMICAL SHANGHAI COMMERCE LTD. | Sales of chemical products/functional products in China |  Corporate | [Head office] 2110A, Westgate Mall, 1038 Nanjing Road (W), Shanghai | 200041 | China | 86-21-62184081 |
| C | MITSUBISHI GAS CHEMICAL SINGAPORE PTE. LTD. | Sale of methanol and other chemicals in the Southeast Asia |  Corporate | [Head office] #16-01 Clifford Centre, 24 Raffles Place | 048621 | Singapore | 65-6224-0059 |
| C | PT PEROKSIDA INDONESIA PRATAMA | Manufacturing and sales of hydrogen peroxide |  Specialty Chemicals Company | [Head office] PO Box 53, Jl. Jend. A. Yani, Cikampek, Jawa Barat 41373 | | Indonesia | 62-264-31-3383 |
| | POLYXYLENOL SINGAPORE PTE LTD. | Manufacturing of polyphenylene ether resin |  Specialty Chemicals Company | [Head office] 20 Sakra Road, Jurong Island | 627889 | Singapore | 65-6316-1777 |
| | PTM ENGINEERING PLASTICS (NANTONG) CO., LTD. | Manufacturing and sales of polyacetal resin |  Specialty Chemicals Company | [Head office] NETDA, 171 Minxing Road, Jiangsu Province | | China | 86-513-8592-2000 |
| C | SAMYOUNG PURE CHEMICALS CO., LTD. | Manufacturing and sales of ultra-pure hydrogen peroxide |  Specialty Chemicals Company | [Head office] 22, 1-ro, 5-sandan, Seongnam-myeon, Dongnam-gu, Cheonan-si, Chungcheongnam-do | 32145 | Korea | 82-41-520-8000 |
| | SAUDI METHANOL CO. (AR-RAZI) | Manufacturing and sales of methanol |  Natural Gas Chemicals Company | [Head office] PO Box 10065, Madinat Al-Jubail Al-Sinayah 31961 | | Kingdom of Saudi Arabia | 966-3-357-7810 |
| C | SUZHOU MGC SUHUA PEROXIDE CO., LTD. | Manufacturing and sales of hydrogen peroxide/ chemical polishing agent |  Specialty Chemicals Company | [Head office] Dongsha Chemical Area, Nanfeng Town, Zhangjiagang | 215619 | China | 86-512-58635600-8882 |
| E | TAI HONG CIRCUIT INDUSTRIAL CO., LTD. | Manufacturing and sales of printed circuit boards |  Information & Advanced Materials Company | [Head office/plant] 81 Guangfu Road, Fengshan Village, Hukou Township, Hsinchu County | 303 | Taiwan | 886-3-5985-111 |
| C | THAI POLYACETAL CO., LTD. | Manufacturing and sales of polyacetal resin |  Specialty Chemicals Company | [Head office] Floor 24/4-8, Emporium Tower, 622 Sukhumvit Road, Klongton Klongtoey, Bangkok | 10110 | Thailand | 66-2-261-9260 |
| E | THAI POLYCARBONATE CO., LTD. | Manufacturing and sales of polycarbonate resin |  Specialty Chemicals Company | [Head office] Emporium Tower, Floor 24/4-8, 622 Sukhumvit Road, Klongton Klongtoey, Bangkok | 10110 | Thailand | 66-2-261-9260 |

C=Consolidated subsidiary E=Equity method affiliate

BUSINESS LOCATIONS

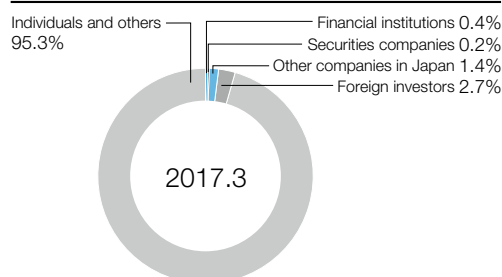
| | Address | Telephone | Fax |
|---|--|-----------------|-----------------|
| Head Office | | | |
| Head Office | Mitsubishi Building, 5-2, Marunouchi 2-chome Chiyoda-ku, Tokyo 100-8324 | 81-3-3283-5000 | 81-3-3287-0833 |
| Branch Offices | | | |
| Osaka Branch | 23rd floor, Applause Tower, 19-19 Chaya-machi, Kita-ku, Osaka-shi, Osaka 530-0013 | 81-6-6372-1300 | 81-6-6376-1220 |
| Shanghai Office | 2110A, Westgate Mall, 1038 Nanjing Road (W), Shanghai 200041, China | 86-21-62184081 | 86-21-62184092 |
| Taiwan Office | 14th Floor-13, No. 211, Sec. 1, Civic Building, Taipei 10351, Taiwan | 886-2-2552-5335 | 886-2-2552-5367 |
| Research Institutes | | | |
| Tokyo Techno Park (TTP) | 6-1-1 Niijuku, Katsushika-ku, Tokyo 125-8601 | 81-3-3627-9411 | 81-3-3627-9711 |
| Tokyo Research Laboratory | 6-1-1 Niijuku, Katsushika-ku, Tokyo 125-8601 | 81-3-3627-9411 | 81-3-3627-9711 |
| MGC Chemical Analysis Center | 6-1-1 Niijuku, Katsushika-ku, Tokyo 125-8601 | 81-3-3627-9586 | 81-3-3627-9560 |
| Information & Advanced Materials Company Planning & Development Division R&D Center | 6-1-1 Niijuku, Katsushika-ku, Tokyo 125-8601 | 81-3-3627-9561 | 81-3-3608-7211 |
| Niigata Research Laboratory | 182 Tayuhama-shinwari, Kita-ku, Niigata-shi, Niigata 950-3112 | 81-25-259-8211 | 81-25-259-8218 |
| Hiratsuka Research Laboratory | 5-6-2 Higashiyawata, Hiratsuka-shi, Kanagawa 254-0016 | 81-463-21-8600 | 81-463-21-8630 |
| Plants | | | |
| Niigata Plant | 3500 Matsuhama-cho, Kita-ku, Niigata-shi, Niigata 950-3121 | 81-25-258-3474 | 81-25-259-6931 |
| Mizushima Plant | 3-10 Mizushima-kaigan-dori, Kurashiki-shi, Okayama 712-8525 | 81-86-446-3822 | 81-86-448-4723 |
| Yokkaichi Plant | 2-4-16 Hinagahigashi, Yokkaichi-shi, Mie 510-0886 | 81-59-345-8800 | 81-59-347-0799 |
| Naniwa Plant | 1-3-27 Funa-machi, Taisho-ku, Osaka-shi, Osaka 551-0022 | 81-6-6551-3371 | 81-6-6551-6165 |
| Saga Plant | 681-45 Kamikumakawa, Fuji-cho, Saga-shi, Saga 840-0512 | 81-952-64-2400 | 81-952-64-2402 |
| Yamakita Plant | 950 Kishi, Yamakita-machi, Ashigarakami-gun, Kanagawa 258-0112 | 81-465-75-1111 | 81-465-76-3424 |
| Kashima Plant | 35 Towada, Kamisu-shi, Ibaraki 314-0102 | 81-299-96-3121 | 81-299-96-5686 |
| Other | | | |
| QOL Innovation Center Shirakawa | 1-8 Toyochiyanaigoya, Shirakawa-shi, Fukushima 961-0005 | 81-248-24-9001 | 81-248-24-9051 |
| Overseas Branch Offices | | | |
| Mitsubishi Gas Chemical America, Inc. | 24th Floor, 655 Third Avenue, New York, NY 10017, U.S.A. | 1-212-687-9030 | 1-212-687-2810 |
| Mitsubishi Gas Chemical Singapore Pte. Ltd. | #16-01, Clifford Centre, 24 Raffles Place 048621, Singapore | 65-6224-0059 | 65-6224-6079 |
| MGC Trading (Thailand) Ltd. | 18th Floor, Unit 1810, Empire Tower, 195 South Sathorn Road, Yannawa, Sathorn, Bangkok 10120, Thailand | 66-2-670-3417 | 66-2-670-3419 |
| Mitsubishi Gas Chemical Europe GmbH | 13 Immermannstr., Dusseldorf D-40210, Germany | 49-211-363080 | 49-211-354457 |
| Mitsubishi Gas Chemical Shanghai Commerce Ltd. | 2110A, Westgate Mall, 1038 Nanjing Road(W), Shanghai 200041, China | 86-21-62184081 | 86-21-62184092 |

INVESTOR INFORMATION (as of March 31, 2017)

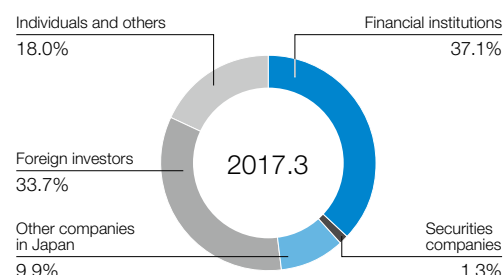
| | |
|------------------------|---|
| Listing | The first section of the Tokyo Stock Exchange |
| Ticker code | 4182 |
| Authorized shares | 492,428,000 |
| Outstanding shares | 241,739,199 |
| Stock transaction unit | 100 - shares |
| Number of stockholders | 19,843 |

Composition of stockholders

Composition by holders



Composition by holdings



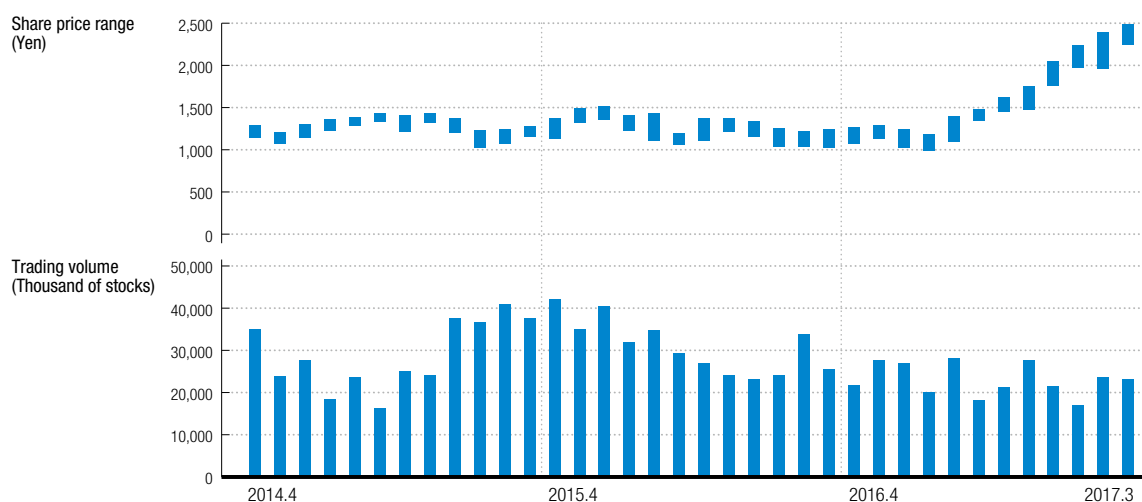
Principal stockholders (Top 10)

| | Name | Number of shares held (Thousands) | Shareholding ratio (%) |
|----|--|-----------------------------------|------------------------|
| 1 | Japan Trustee Services Bank, Ltd. (Trust Account) | 9,242 | 4.3 |
| 2 | Nippon Life Insurance Company | 8,795 | 4.1 |
| 3 | The Master Trust Bank of Japan, Ltd. (Trust Account) | 8,646 | 4.0 |
| 4 | Meiji Yasuda Life Insurance Company | 8,397 | 3.9 |
| 5 | The Bank of Tokyo-Mitsubishi UFJ, Ltd. | 5,401 | 2.5 |
| 6 | The Norinchukin Bank | 5,026 | 2.3 |
| 7 | Asahi Glass Co., Ltd. | 4,835 | 2.2 |
| 8 | THE BANK OF NEW YORK MELLON 140044 | 3,811 | 1.8 |
| 9 | Japan Trustee Services Bank, Ltd. (Trust Account 5) | 3,584 | 1.7 |
| 10 | Mitsubishi UFJ Trust and Banking Corporation | 3,506 | 1.6 |

Note: MGC holds 25,923 thousand shares of treasury stock, which is not included in the above list of principal stockholders or percentage calculations.

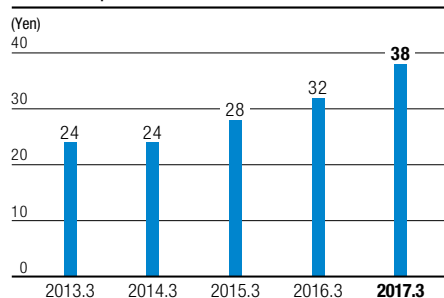
*With an effective date of October 1, 2016, MGC conducted a reverse stock split for MGC's ordinary shares on a 2:1 basis, while also changing the number of authorized shares from 984,856 thousand shares to 492,428 thousand shares. Additionally, on the same date, the trading unit was changed from 1,000 shares to 100 shares.

Monthly stock price range and trading volume



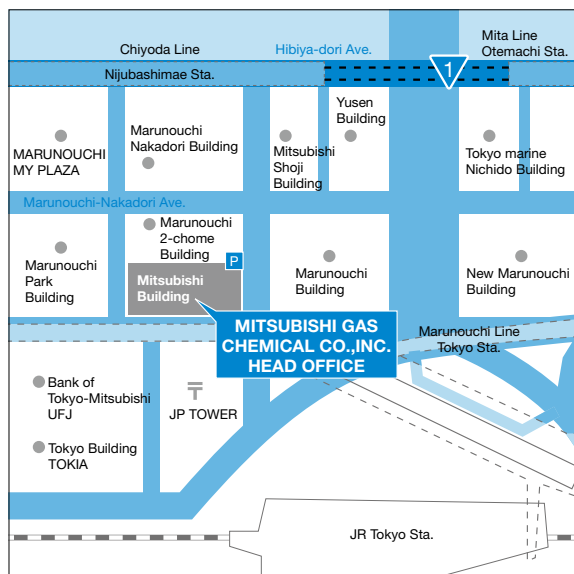
*With and effective date of October 1, 2016, MGC conducted a reverse stock split for MGC's ordinary shares on a 2:1 basis. As a result, the share price and market trading volume in the graph on the left are calculated assuming that the reverse stock split had been conducted at the beginning of April, 2014.

Dividend per share



*With and effective date of October 1, 2016, MGC conducted a reverse stock split for MGC's ordinary shares on a 2:1 basis. As a result, the dividend per share in the graph on the left is calculated assuming that the reverse stock split had been conducted at the beginning of FY2012.

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-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)

