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Dow Chemical Company

The Dow Chemical Company (NYSE: DOW TYO: 4850) is an American multinational corporation headquartered in Midland, Michigan. As of 2007, it is the second largest chemical manufacturer in the world by revenue (after BASF) [1] and as of February 2009, the third-largest chemical company in the world by market capitalization (after BASF and DuPont).

Dow Chemical is a provider of plastics, chemicals, and agricultural products with presence in more than 175 countries and employing 46,000 people worldwide. It spends more than $1 billion annual expenditure in R&D. Its stated mission under the current CEO, Andrew N. Liveris, is: "To constantly improve what is essential to human progress by mastering science and technology" with the vision: "to be the largest, most profitable, and most respected chemical company in the world". [2]

The company was founded in 1897 by Canadian-born chemist Herbert Henry Dow, who had invented a new method of extracting the bromine that was trapped underground in brine at Midland, Michigan. [3] While at first the company sold only bleach and potassium bromide, Dow today has seven major operating segments, with a wide variety of products offered by each. [4] The company's 2005 sales totaled $46.3 billion, with a net income of $4.5 billion. Traded on the New York Stock Exchange, as of 2005 Dow has about 105,000 shareholders of record. [5]

Dow has been called the "Chemical companies' Chemical company" [6] in that most of their product is sold to other manufacturers rather than to end users. At varying points in time Dow has sold directly to customers, primarily in the Human and Animal Health markets as well as Consumer Products.

Dow Chemical is a member of the American Chemistry Council.

Products

Dow is the world's largest producer of plastics, including polystyrene, polyurethanes, polyethylene, polypropylene, and synthetic rubbers. It is also a major producer of the chemicals ethylene oxide, and various acrylates, surfactants, and cellulose resins. It produces many agricultural chemicals, perhaps being most famous for its pesticide Lorsban. [4]

Well-known consumer products include Styrofoam brand insulation. Former Dow product lines, Saran wrap, Ziploc bags and Scrubbing Bubbles have been sold to S. C. Johnson & Son.

Performance plastics

Performance plastics make up 25% of Dow's sales, [7] with many products designed for the automotive and construction industries. The plastics include polyolefins such as polyethylene and polypropylene, as well as the polystyrene most often seen in Styrofoam insulating material. A complete range of epoxy resin intermediates and products are manufactured by Dow, including bisphenol A and epichlorohydrin. Polyurethane, polyether polyols and specialty acrylates are all derived from ethylene oxide (EO). The Saran range of resins and films is based on polyvinylidene chloride (PVDC)

Performance chemicals

The Performance Chemicals (17% of sales) segment produces materials for water purification, pharmaceuticals, paper coatings, paints and advanced electronics. Major product lines include nitroparaffins such as nitromethane, used in the pharmaceutical industry and manufactured by ANGUS Chemical Company,[8] a wholly owned subsidiary of The Dow Chemical Company. Important polymers include Dowlex ion exchange resins, acrylic and polystyrene latex, as well as Carbowax polyethylene glycols. Specialty chemicals are used as starting materials for production of agrochemicals and pharmaceuticals.

Water Purification

Dow Chemical's water solutions business unit manufactures Filmtec reverse osmosis membranes which are used widely for purification of water for human use in the Middle East, in countries including: United Arab Emirates, Jordan and Saudi Arabia. The technology was also used during the 2000 Summer Olympics and the 2008 Summer Olympics.[9]

Agricultural sciences

Agricultural Sciences (Dow AgroSciences) provides 7% of sales, and are responsible for a range of insecticides (such as Lorsban), herbicides and fungicides. Genetically modified plant seeds are also an important, growing area. Dow AgroSciences sells seeds commercially under the following brands: Mycogen (grain corn, silage corn, sunflowers, alfalfa, and sorghum), Atlas (soybean) and PhytoGen (cotton).

Basic plastics

Basic plastics (26% of sales) end up in everything from diaper liners to beverage bottles and oil tanks. Products are based on the three major polyolefins – polystyrene (such as Styron resins), polyethylene and polypropylene.

Basic chemicals

Basic chemicals (12% of sales) are used internally by Dow as raw materials, and are also sold worldwide. Markets include dry cleaning, paints and coatings, snow and ice control and the food industry. Major products include ethylene glycol, caustic soda, chlorine, and vinyl chloride monomer (VCM, for making PVC). Ethylene oxide (EO) and propylene oxide and the derived alcohols ethylene glycol and propylene glycol are major feedstocks for the manufacture of plastics such as polyurethane and PET.

Hydrocarbons and energy

The Hydrocarbons and Energy operating segment (13% of sales) oversees energy management at Dow, succeeding in raising energy efficiency by 92% since 1990.[7] Fuels and oil-based raw materials are also procured. Major feedstocks for Dow are provided by this group, including ethylene, propylene, 1,3-butadiene, benzene and styrene.

History

Early history

The company originally sold only bleach and potassium bromide, achieving a bleach output of 72 tons a day in 1902. Early in the company's existence, a group of British manufacturers attempted to drive Dow out of the bleach business by cutting prices. Dow survived by cutting prices in response and, although losing about $90,000 in income, began to diversify its product line.[10] In 1905 German bromide producers drastically reduced their price of bromides in the US in an effort to prevent Dow from expanding its sales of bromides in Europe. Dow was able to purchase German-made

bromides in the US, ship them back to Europe and still sell them at a lower price than the German producers were charging.[11] Even in its early history, the company set a tradition of rapidly diversifying its product line. Within twenty years, Dow had become a major producer of agricultural chemicals, elemental chlorine, phenol and other dyestuffs, and magnesium metal.

In the 1930s, Dow began production of plastic resins, which would grow to become one of the corporation's major businesses. Its first plastic products were ethylcellulose, made in 1935, and polystyrene, made in 1937.

Diversification and expansion

In 1940–1941, Dow built its first plant to produce magnesium extracted from seawater rather than underground brine. This marked the first time man had 'mined the ocean for metal'.[12] Growth of this business made Dow a strategically important business during World War II, as magnesium became important in fabricating lightweight parts for aircraft. Also during the war, Dow and Corning began their joint venture, Dow Corning, to produce silicones for military and later civilian use. In 1942 Dow began its foreign expansion with the formation of Dow Chemical of Canada in Sarnia, Ontario to produce styrene for use in styrene-butadiene synthetic rubber.

In 1940, Dow began plant construction in Freeport, Texas. This is now the home to Dow's largest site - and one of the largest integrated chemical manufacturing sites in the world. One of the first plants to come on stream was the first facility to extract magnesium from seawater. The site grew quickly - with power, chlorine, caustic soda and ethylene also soon in production.[12] Based on 2002–2003 data, the Freeport plants (known as Texas Operations internally) produced 27 billion pounds of product - or 21% of Dow's global production.[13]

The "Ethyl-Dow Chemical Company" plant at "Kure's Beach" NC , the only plant on the East Coast producing bromine from seawater, was attacked by a German U-boat in 1942.[14]

In the post-war era, Dow began expanding outside North America, founding its first overseas subsidiary in Japan in 1952, with several other nations following rapidly thereafter. Based largely on its growing plastics business, it opened a consumer products division beginning with Saran wrap in 1953. Based on its growing chemicals and plastics businesses, Dow's sales exceeded $1 billion in 1964, $2 billion in 1971, and $10 billion in 1980.

Nuclear Weapons

From 1951 to 1975 Dow managed the Rocky Flats Plant. Rocky Flats was a nuclear weapons production facilty which produced plutonium triggers for hydrogen bombs.

Main article: Rocky Flats Plant

Contamination from fires and radioactive waste leakage plagued the facility under Dow management. In 1957 and 1969 fires burned plutonium dust in the facility and sent radioactive particles into the atmosphere. The fire in 1969 was the costliest industrial accident to ever occur in the United States up to that time. 3,500 barrels of lubricants and solvents, laden with plutonium leaked into the ground in 1967. Management of the facility was handed over to Rockwell International in 1975. A class action lawsuit was filed against Dow and Rockwell in 1990. In 2008 a federal judge ordered Dow and Rockwell to pay a combined $925 million in damages to citizens.[15]

Vietnam war: Napalm and Agent Orange

During the Vietnam War, Dow became the sole supplier of napalm to the United States military who used napalm in their efforts during the war.

Main article: Agent Orange

Agent Orange, a chemical defoliant containing dioxin, was also manufactured by Dow in New Plymouth, New Zealand and in America for use by the U.S. military during the Vietnam War. In 2005, a lawsuit was filed by Vietnamese victims of Agent Orange against Dow and Monsanto Company, which also supplied Agent Orange to the military. The lawsuit was dismissed. [16]

Dow Corning Breast implants

See also: Dow Corning breast implants controversy

A major manufacturer of silicone breast implants, Dow Corning (Dow Chemical's Joint Venture with Corning Inc.) was sued for personal damages caused by ruptured implants. Per the 2005 10-K for The Dow Chemical Company filing "On October 6, 2005, all such cases then pending in the District Court against the Company were dismissed. Should cases involving Dow Corning's breast implant and other silicone medical products be filed against the Company in the future, they will be accorded similar treatment." The Dow Chemical Company - 10-K Filing - 2005

DBCP

Until the late 1970s, Dow produced DBCP (1,2-dibromo-3-chloropropane), a soil fumigant and nematicide sold under the names the Nemagon and Fumazone. Workers at Dow's DBCP production were made sterile by exposure to the compound. These male reproductive effects were consistent with animal experiments showing that DBCP sterilized rabbits. The workers successfully sued the company, and most domestic uses of DBCP were banned in 1977. Amid growing concerns over the chemical's effects on male workers, Dow ceased production and reclaimed DBCP that had been shipped to its users. Despite warning from the company about its health effects, Dole Food Company, who was using the chemical on its banana plantations in Latin America, threatened to sue Dow if it stopped DBCP shipments, so Dow shipped half a million gallons of DBCP to Dole, much it reclaimed from other users. Plantation workers who became sterile or were stricken with other maladies subsequently sued both Dow and Dole in Latin American courts, alleging that their ailments were caused by DBCP exposure. While the courts agreed with the workers and awarded them over $600 million in damages, they have been unable to collect payments from the companies. A group of workers then sued in the United States, and, on November 5, 2007, a Los Angeles jury awarded them 3.2 million dollars. Dole and Dow vowed to appeal the decision. [17] On April 23, 2009 a Los Angeles judge threw out two cases against Dole and Dow due to fraud and extortion by lawyers in Nicaragua recruiting fraudulent plaintiffs to make claims against the company. [18] The ruling casts doubt on $2 billion in judgments in similar lawsuits. [19]

Recent Mergers, Acquisitions, and Reorganization

1990's – transition from geographic alignment to global business units

In the early 1990s, Dow embarked on a major structural reorganization. The former reporting hierarchy was geographic based, with the regional president reporting directly to the overall company President and CEO. The new organization

combines the same businesses from different sites, irrespective of which region they belong (i.e. the vice president for Polystyrene is now in charge of these plants all over the world), almost reducing the regional president to a figurehead.

In 1995, Dow was fined $732,000 for not sending the EPA reports it had received on 249 Dursban poisoning incidents. In June 2000, Dow withdrew registration of chlorpyrifos for use in homes and other places where children could be exposed, and severely restricted its use on crops. The company, however, continues to market Dursban in industrializing countries, including India, where Dow's sales literature claimed Dursban has "an established record of safety regarding humans and pets."

In 2003, Dow agreed to pay $2 million - the largest penalty ever in a pesticide case - to the state of New York, in response to a lawsuit filed by the Attorney General to end Dow's illegal advertising of Dursban as "safe".

Union Carbide merger

At the beginning of August 1999, Dow agreed to purchase Union Carbide Corporation for $9.3 billion in stock. At the time the combined company was the second largest chemical company, behind DuPont. This led to protests from some stockholders, who feared that Dow would become responsible for Union Carbide's role in the Bhopal disaster.

Bill Stavropoulos served as President and Chief Executive Officer from 1995–2000 and again from 2002–2004. He relinquished his board seat on April 1, 2006, having been a director since 1990 and chairman since 2000. During his first tenure, he led the purchase of Union Carbide which proved controversial, as it was blamed for poor results under his successor as CEO Mike Parker. Parker was dismissed and Stavropoulos returned from retirement to lead a turnaround of Dow. [20]

Today, Dow is the world's largest producer of plastics; with its 2001 acquisition of Union Carbide, it has become a major player in the petrochemical industry as well.

2006–2008 Restructuring

On August 31, 2006 Dow announced that it had plans to close facilities at three locations: [21]

It will shut down all of its production in Sarnia, Ontario by the end of 2008. Sarnia had been Dow's first manufacturing site in Canada. In 1942, the Canadian government invited Dow to build a plant there to produce styrene (an essential raw material used to make synthetic rubber for World War II). Dow then built a polystyrene plant in 1947. Up to the early 1990s, the Chemical Valley site contained numerous plants, while Dow Canada's headquarters were located at the Modeland Centre, and a new River Centre complex was opened which housed Research and Development. Since then, several plants on the site have been dismantled and Dow Canada headquarters were moved to Calgary, Alberta, while the Dow Fitness Centre was donated to YMCA of Sarnia-Lambton, and the Modeland Centre was sold to Lambton County and the City of Sarnia. In 2000, Sarnia Site was the location of a pilot plant for ethylene-styrene interpolymer (ESI) but ending up production never progressed and the project was ended. In 2002, the old steam plant was demolished and land on the site was sold to TransAlta which built a new natural gas power plant. As of 2003, the remaining plants on the site produce Polystyrene, Low Density Polyethylene (LDPE), Epoxy Resins, Polyols (Propylene Oxide Derivatives), and Latexes. [22]

One plant (Dow terminology for a production unit) at its site in Porto Marghera (Venice), Italy which had been shut down for planned maintenance earlier that month, will not be restarted.

Two plants at its major site in Fort Saskatchewan, Alberta were to be shut down by the end of October 2006.

In December 2007, Dow announced a series of moves to revamp the company. A December 4 announcement revealed that Dow planned to exit the automotive sealers business in 2008 or 2009.[23] Within several weeks, Dow also announced the formation of a joint venture, later named K-Dow, with the Petrochemical Industries Company (PIC), a subsidiary of Kuwait Petroleum Corporation. In exchange for $9.5 billion, Dow sold a 50% interest in five of its global businesses: polyethylene, polypropylene and polycarbonate plastics, and ethylenamines and ethanolamines.[24]

Rohm & Haas Company purchase

On July 10, 2008, Dow agreed to purchase all of the common equity interest of Rohm and Haas Company for $18.8 billion, which equates to $78 for each share. The buyout will be financed with equity investments of $3 billion by Berkshire Hathaway Inc. and $1 billion by the Kuwait Investment Authority. The purpose of the deal is to move Dow Chemical further into specialty chemicals, which offer higher profit margins than the commodities market and are more difficult to enter for the competition. The purchase has been criticized by many on Wall Street who believe Dow Chemical overpaid (about a 75% premium on the previous day's market capital) to acquire the company; however, the high bid was needed to ward off competing bids from BASF. The transaction to purchase the outstanding interest of Rohm and Haas closed on April 1, 2009.[25]

Accelerated Implementation

On December 8, 2008 Dow announced due to the 2008 economic crisis they would accelerate job cuts resulting from their reorganization. The announced plan includes closing 20 high-cost facilities, temporary idling of 180 plants, and elimination of 5,000 full-time jobs (about 11 percent of their work-force) and 6,000 contractor positions.[26]

Strategy Interruption

Citing the global recession that begin in the latter half of 2008, the Kuwaiti government scuttled the K-Dow partnership on December 28, 2008.[27] The collapse of the deal dealt a blow to Andrew Liveris' vision of restructuring the company to make less cyclical. However, on January 6, 2009 Dow Chemical announced they were in talks with other parties who could be interested in a major joint venture with the company.[28] They also announced they would be seeking to recover damages related to the failed Joint Venture from PIC.[28]

After the K-Dow deal collapsed, some speculated Dow would not complete the Rohm & Haas transaction, as the cash from the former transaction was expected to fund the latter.[29] The deal was expected to be finalized in early 2009 and was to form one of the nation's largest specialty chemicals firms.[30][31] However, on January 26, 2009 the company informed Rohm and Haas that it would be unable to complete the transaction by the agreed upon deadline.[32] Dow cited a deteriorated credit market and the collapse of the K-Dow Petrochemical deal as reasons for failing to timely close the merger. Around the same time CEO Andrew Liveris said a first time cut to the company's 97 year old dividend policy was not "off the table". On February 12, 2009 the company declared a quarterly dividend of

$.15/share, down from $.42 the previous quarter. The cut represented the first time the company had diminished its investor payout in the dividend's 97 year history.[33][34]

After negotiating the sale of Preferred Stock with Rohm and Hass' largest two stockholders and extending their one year bridge loan an additional year, the company announced a closure of the merger on March 9, 2009. The purchase price will be the previously agreed upon $78 a share.[25]

Chlorpyrifos

Chlorpyrifos, marketed by Dow as Dursban, is well known as a home and garden insecticide, and until 2000 it was one of the most widely used household pesticide in the US. The pesticide is also a nerve toxin and suspected endocrine disruptor and has been associated with carcinogenicity, reproductive and developmental toxicity, and acute toxicity. Pesticide Action Network, a hazardous pesticide elimination advocacy group, estimated Dow contributed 80% of human exposure to chlorpyrifos based on their estimate of Dow's market share in 2004.[35]

Dioxin Leaks

See also: Dioxin controversy

Areas along Michigan's Tittabawassee River, which runs within yards of Dow's main plant in Midland, were found to contain elevated levels of the cancer-causing chemical dioxin in November 2006. The dioxin was located in sediments two to ten feet below the surface of the river, and, according to the *New York Times*, "there is no indication that residents or workers in the area are directly exposed to the sites".[36] However, people who often eat fish from the river had slightly elevated levels of dioxin in their blood.[36] In July 2007, Dow reached an agreement with the Environmental Protection Agency to remove 50,000 cubic yards (38,000 m^3) of sediment from three areas of the riverbed and levees of the river that had been found to be contaminated.[37] In November 2008, Dow Chemical along with the United States Environmental Protection Agency and Michigan Department of Environmental Quality agreed to establish a Superfund to address dioxin cleanup of the Tittabawassee River, Saginaw River and Saginaw Bay.[38]

Environmental record

The Political Economy Research Institute ranks Dow Chemical third among corporations emitting airborne pollutants in the United States. The ranking is based on the quantity (11 million pounds in 2005) and toxicity of the emissions.[39]

According to the United States Environmental Protection Agency (EPA), Dow has some responsibility for 96 of the United States' worst Superfund toxic waste dumps placing it in tenth place by number of sites. One of these, a mining site, is listed as the sole responsibility of Dow. The rest are shared with numerous other companies. Fifteen sites have been listed by the EPA as finalized (cleaned up) and 69 are listed as "construction complete", meaning that all required plans and equipment for cleanup are in place.[40]

In 2007, Dow was awarded an American Chemical Council (ACC) award of 'Exceptional Merit' in recognition of its longstanding energy efficiency and conservation efforts. Between 1995 and 2005, Dow reduced energy intensity (BTU per pound produced) by 22%. This is equivalent to saving enough electricity to power eight million US homes for a year.[41] The same year, Dow subsidiary Dow Agrosciences won a United Nations Montreal Protocol Innovators Award for its efforts in helping replace methyl bromide - a compound identified as contributing to the depletion of the

ozone layer. In addition, Dow Agrosciences won an EPA "Best of the Best" Stratospheric Ozone Protection Award. [1].

The United States Environmental Protection Agency (EPA) named Dow as a 2008 Energy Star Partner of the Year for excellence in energy management and reductions in greenhouse gas emissions. [42]

In 2008, Dow was reported [43] as being the major supplier of pesticides based on aminopyralid which had contaminated manure and caused widespread loss of vegetable crops in allotments and gardens across the UK.

Board of directors

Current members of the board of directors of The Dow Chemical Company are:

Arnold Allemang - Adviser, The Dow Chemical Company

Jacqueline Barton - chemistry professor

James A. Bell - former Boeing manager

Jeff Fettig - Whirlpool Corporation, Chairman and CEO

Barbara Franklin - former U.S. Secretary of Commerce

Andrew N. Liveris - Chairman and CEO, The Dow Chemical Company

Geoffery E. Merszei - CFO, The Dow Chemical Company

James Ringler - Vice chairman, Illinois Tool Works Inc.

Ruth Shaw - President, Duke Energy Corporation

Paul Stern - Chairman, Claris Capital; Dow's presiding Director and a member of the Council on Foreign Relations.) [44]

2007 dismissal of senior executives

On April 12, 2007, Dow dismissed two senior executives for "unauthorized discussions with third parties about the potential sale of the company." The two figures are executive vice president Romeo Kreinberg, and director and former CFO J. Pedro Reinhard. Dow claims they were secretly in contact with JPMorgan Chase; at the same time, a story surfaced in Britain's Sunday Express regarding a possible leveraged buyout of Dow. The two executives have since filed lawsuits claiming they were fired for being a threat to CEO Liveris, and that the allegations were concocted as a pretext. [45] However, in June 2008 Dow Chemical and the litigants announced a settlement in which Kreinberg and Reinhard dropped their lawsuits and admitted taking part in discussions "which were not authorized by, nor disclosed to, Dow's board concerning a potential LBO" and acknowledged that it would have been appropriate to have informed the CEO and board of the talks. [46]

Major Sponsorships

In September 2004, the company obtained the naming rights to the Saginaw County Event Center in Saginaw, Michigan; the center is now called the Dow Event Center. The Saginaw Spirit (of the Ontario Hockey League) plays at the Center, which also hosts events such as professional wrestling and live theater.[47][48]

In October 2006 the company bought the naming rights to the stadium used by the Great Lakes Loons, a Single-A minor league baseball team located in its hometown of Midland, Michigan. The stadium, which opened in April 2007, is called Dow Diamond. The Dow Foundation played a key role in bringing the Loons to the city.

Dow is a major sponsor of US Speedskating's Short Track and Long Track Teams.

The company also sponsors a global running relay to highlight the need for better drinking water in locations around the globe. The run will roughly follow the 41st North parallel and cover nearly 12,000 miles (19,000 km). The run is organized by the Blue Planet Run Foundation.

Dow owns the Saginaw River Light and is active in its restoration.

Outlook

Dow CEO Andrew N. Liveris called 2005 the company's "best year ever" with operating profits of $5.4 billion, a jump of 56.5% compared with the previous year.[49] Net income rose more than 60% to $4.5 billion, on sales of $46.3 billion. 2006 looks as if it could be even better, with first-quarter net earnings of $1.2 billion.[50] All this is occurring in the context of adverse operating conditions, caused by high energy and raw material costs, and the effects of two damaging hurricanes.

Liveris supports the vertically integrated approach used at Dow, which produces everything from basic chemical feedstocks to high value products such as pesticides and reverse osmosis membranes. These value-adding product chains, along with Dow's wide product range, help the company to weather the storms of the global economy. Despite this, high energy and feedstock costs may begin to take their toll, particularly if global demand begins to fall just as supply is rising.

Like many chemical companies, Dow is facing pressures of regulation in the US and Europe, particularly as the EU introduces its new REACH policy. Litigation costs in the US taken over by Dow as a result of its 2001 takeover of Union Carbide also remain a concern.

For these reasons the company is looking to the Middle East and Asia for new projects. In Kuwait , Dow is constructing (with PIC of Kuwait) a new world-scale ethane cracker for production of ethylene, along with an ethylene oxide/ethylene glycol plant and (for 2008) a facility for production of aromatic hydrocarbons. In Oman, the company is working with the Oman government to build a new world-scale polyethylene plant. In China, the company is collaborating with Shenhua Group (the country's largest coal mining company) to improve catalyst efficiency to allow viable conversion of coal to olefins. Dow is also seeking to expand its R&D presence in Asia, adding 600 jobs in Shanghai by the end of 2007, and the company may open up a large R&D center in India.

The joint ventures planned for Asia are typical of Dow's "asset-light" approach, which works by offering a combination of intellectual property and money in exchange for a share in a world-scale production facility. At the same time, the company is considering selling a share of some of its existing assets in order to free up cash.

In June 2006 Liveris announced Dow's safety and environmental goals for 2015: [50]

75% reduction in environmental, health and safety indicators from 2005. The company aims to have no fatalities, and a reduction in injuries, spillages and leaks.

25% increase in energy efficiency.

2.5% annual reduction in greenhouse gas emissions intensity.

Liveris expects these goals to be reached predominantly with fossil fuels, through energy conservation and reduction of energy intensity, as he does not expect alternative energy to play a major role for at least 10–20 years.

Subsidiaries and Joint Ventures

Dow Chemical has a number of Subsidiaries and Joint Ventures. [51]

Subsidiaries

- Dow AgroSciences, LLC.
- Union Carbide Corporation
- Rohm and Haas
- ANGUS Chemical Company

Current Joint Ventures

- Americas Styrenics
- Compañía Mega, S.A.
- Dow Corning Corporation
- Dow Kokam [52]
- EQUATE Petrochemical Co. K.S.C.
- Equipolymers
- MEGlobal
- SCG-DOW Group
- Univation Technologies

Former Joint Ventures

- K-Dow Petrochemicals
- Dow Reichhold Specialty Latex

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External links

The Dow Chemical Company

Dow Chemical Corporate Officers

Dirty Dow: Article on Dow's industrial accidents and controversies with citations

Poison in Bhopal Photo report from ReMedAct (2008)

Orange Child Photo report from ReMedAct on victims of Orange agent in Viet Nam (2006)

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