Dry Ice suppliers in USA & Worldwide (2022)

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In this post, we will list the top Dry Ice suppliers in USA & Worldwide (2022). The high demand for Dry Ice in Transportation & Distribution, Food Manufacturing/Processing, Industrial Cleaning, Entertainment Industry, Research/Scientific, and Other applications will drive the Dry Ice market.

It is predicted that the growth of the Dry Ice Market will be significantly different in 2022 than the previous year. It is expected that the Dry Ice Market will register a spectacular increase in CAGR over the next five years.

On the Linquip website, among the many options available to you, you will find all the information you need to know about dry ice, as well as information regarding this marketplace. You can count on Linquip to provide you with as much general and reliable information about the dry ice industry as possible, whether you're a professional in the dry ice industry or a customer looking for a product. Seeing as it is derived from the refining of chemical materials like ammonia and petroleum, we recommend you review a list of all **Material Technology Manufacturers** available in Linquip.

We would be delighted to provide you with more information on how we can help you generate revenue within your industry. Don't hesitate to contact us if you have any questions! With **Linquip's Solutions for Each Company Level**, you will be able to upgrade the capabilities of your organization in order to gain a competitive edge by taking

advantage of a wide range of options to enhance your organization's performance. If you are looking for the simplest or the most sophisticated marketing and advertising package for your business, we can help you ensure that your company gets as many customers as possible to grow your business.

Do you want to find out more information regarding the cost of dry ice products that are currently available on the market? With Linquip's platform, you have the opportunity to send a request to a variety of <u>Material Technology Suppliers and Companies</u> and receive free quotes from each of them.

Basics of Dry Ice

The solid state of carbon dioxide is known as dry ice. At atmospheric pressure, CO₂ has no liquid state and sublimates directly from its solid state to the gas state, making it ideal for temporary refrigeration. This chemical is commonly used as a cooling agent, but it can also be found in fog machines at theaters as a dramatic effect. Aside from its lower temperature, it leaves no residue (apart from incidental frost from air moisture). In places where mechanical cooling is not available, it can be used to preserve frozen foods (such as ice cream).

The sublimation temperature of dry ice at Earth's atmospheric pressure is 194.7 K (-78.5 °C; -109.2 °F). Without protective clothing, handling the solid is dangerous due to the extreme cold. Although generally not very toxic, the outgassing from it can cause hypercapnia (abnormally elevated levels of carbon dioxide in the blood) because of its buildup in confined spaces.



Blasting dry ice (Reference: continentalcarbonic.com)

Manufacturing Process

The process of making dry ice is simple. Dry ice is mainly produced by using gasses containing high concentrations of carbon dioxide. These gasses can be produced from other processes, such as nitrogen and natural gas production, oil refinery operations, or large-scale fermentation. These gasses are then refrigerated and liquefied. The pressure is then reduced. This causes some liquid carbon dioxide to vaporize, resulting in a rapid drop in temperature. This extreme cold results in the liquid solidifying into a form similar to snow. The solid carbon dioxide is finally compressed into blocks or pellets of dry ice.

Typically, dry ice is produced in three forms: large blocks, small cylindrical pellets (13 or 16 mm in diameter), and tiny (3.2 mm in diameter) cylindrical pellets with a high surfaceto-volume ratio that float on oil or water and do not stick to skin. It has been found that middle school students wearing appropriate personal protective equipment such as gloves and safety glasses are able to experiment with small dry ice pellets for dry ice blasting, quick freezing, fire fighting, and oil solidifying. A typical block weighs approximately 30 kg and is covered with a taped paper wrapper. Because of their low surface area to volume ratio, they are commonly used in shipping.

The pellets have a diameter of around 1 cm and can be easily bagged. Pellets are suitable for small-scale use, for example, in grocery stores and laboratories where they are kept in insulated chests. The density of pellets is 60-70% that of blocks.

In addition, dry ice is produced in cryogenic air separation; a process primarily focused on creating extremely cold liquids such as liquid nitrogen and liquid oxygen. The temperature at which carbon dioxide liquefies or freezes is much higher than the temperature at which nitrogen and oxygen liquefy. It is necessary to remove the carbon dioxide during the process in order to prevent commercial dry ice from fouling the equipment, and once it has been separated, it can be processed into commercial dry ice as described above.

Market

It is anticipated that the Global Dry Ice market will grow at a considerable rate between 2021 and 2026. As the market grows steadily in 2022, key players will increase their strategies to boost the market growth.

During the forecast period, North America's market is expected to grow significantly. Market growth opportunities are abundant in this region due to the presence of large players and the use of advanced technologies. Over the forecast period, North America is expected to hold the biggest share of the market, while the <u>APAC</u> region will offer significant opportunities in this market.

Even though there is intense competition, investors remain optimistic due to the global recovery trend, which will result in more new investments entering this field in the future.

There are a number of factors that are driving the growth of the dry ice market, including dry ice's growing use in the transportation and distribution industry, food manufacturing, industrial cleaning, entertainment industry, and research and development.

There are two main segments of the dry ice market: Types and Applications.

Included in the Type segment are:

- Dry Ice Production Machine
- Dry Ice Cleaning Machine

According to application, the market can be segmented into:

- Biotechnology & Medicine
- Food & Beverage
- Automotive Industry
- Industrial Manufacturing
- Among others

American Dry Ice Suppliers

Listed below are the top dry ice suppliers in America, ranked by company size. Each company's information includes its headquarters, sales, year of foundation, and the number of employees. US million dollars are used to measure annual sales. Following the table are summaries of each company.

| Company name | Headquarters | Year founded | Number of employees | Annual sale |
|---------------------------------------|--------------------------|-----------------|---------------------|----------------|
| <u>Airgas</u> | Radnor, PA | 1982 | 10000+ | 250+ |
| <u>Continental</u> <u>Carbonic</u> | Decatur, IL | 1976 | 501-1000 | 50-99 |
| <u>Oxarc, Inc.</u> | Walla Walla, WA | 1968 | 201-500 | 67 |
| <u>CryoCarb</u> | Beloit, WI | 2017 | 51-200 | <5 |
| AGSCO Corporation | Wheeling, IL | 1888 | 11-50 | 10-24.9 |
| Brookline Ice Co. | Brookline, MA | 1924 | 11-50 | 5-9.9 |
| <u>Sutton-Garten</u> <u>Co.</u> | Indianapolis, IN | 1918 | 11-50 | 5-9.9 |
| Apple Ice Inc | Deer Park, NY | 1991 | 11-50 | <1 |
| Capitol Carbonic Corp | Baltimore, MD | 1971 | 2-10 | 5 |
| Tullo Ice | Hasbrouck Heights, NJ | 1909 | 1-9 | <1 |
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Airgas

Airgas is a leading U.S. supplier of industrial, medical, and specialty gasses, as well as hardgoods and related products; the company's safety products rank among the top in the U.S., and its ammonia products are among the top in the U.S.

Airgas provides dry ice to the life sciences, healthcare, food manufacturing, shipping, and blasting industries in Radnor, PA. They offer high density, rice, and standard pellets as well as blocks such as $10 \times 5''$ and $10 \times 10''$, loaves of 5x5x10'', and blocks of 10x10x10''.

Continental Carbonic

Founded in 1976, Continental Carbonic Products, Inc. manufactures and distributes dry ice (solid carbon dioxide). Besides manufacturing liquid carbon dioxide and offering dry ice blasting equipment, Continental Carbonic also manufactures food grade and standard grade dry ice blocks ranging in size from 7/8x5x5" to 10x10x12".

Oxarc

Supplying both sale and rental safety, welding, fire, and gas equipment is Oxarc's specialty. The company, located in Walla Walla, Washington, provides blocks of 10x10x12", slabs of 2" thick, and pellets of small, medium, and large sizes.

CryoCarb

CryoCarb is a new company specializing in "carbonic" and "cryogenic" gas solutions. Its target markets are food, beverage, biotechnology, water treatment, and other "clean" industries. CryoCarb, based in Beloit, WI, offers dry ice for commercial and retail use as part of its extensive specialty gas line. Among their commercial dry ice products are 3mm and 16mm pellets, as well as 10x5x2" blocks.

AGSCO Corp

It produces aggregates, minerals, and general abrasives, including blast and floor aggregates. The Wheeling, IL-based AGSCO Corp manufactures dry ice pellets that are used for degreasing, mold removal, and delicate blasting jobs.

Brookline Ice

Located in Brookline, MA, Since 1924, Brookline Ice & Coal Company, family-owned and operated, provides water and carbon dioxide ice, grilling supplies, and refrigeration products. The company offers food-safe slices, blocks, and pellets in standard and high density.

Sutton-Garten Co.

Sutton-Garten Co. has been supplying metal-working companies with welding and cutting equipment, supplies, and gasses for more than 100 years. Gasses and welding supplies are the company's specialty. Sutton-Garten provides dry ice pellets, slabs, and blocks for food safety, blasting, medical and pharmaceutical applications, transportation, and catering.

Apple Ice

Founded in 1991, Apple Ice manufactures and distributes ice to wholesale and retail customers. Deer Park, New York-based Apple Ice, sells water and carbon dioxide ice, as well as ice melt products and firewood. Each day, Apple Ice produces more than 220.000 pounds of fresh ice. For food storage and processing, they offer pellets and blocks of dry ice.

Capitol Carbonic Corp

In addition to food grade blocks and specialty cut dry ice, Capitol Carbonic Corp provides 1/4, 3/8, 1/2, 5/8, and 3/4'' pellets and 1/8'' blasting dry ice. Located in Baltimore, MD, the company was founded in 1971.

Tullo Ice

Tullo Ice, based in Hasbrouck Heights, NJ, provides dry ice blocks, slices, and pellets used in packaging, medical and pharmaceutical shipping, food distribution, and blasting. Dry ice is also available in special cuts.

Global Dry Ice Suppliers

The following table lists the best dry ice suppliers worldwide. The companies are ranked based on their employee size. Furthermore, the global headquarters location of each company and the year it was founded are also presented. The table is followed by descriptions of these companies.

| Company name | Headquarters | Year founded | Number of employees | Annual sale |
|-------------------------------|------------------------|-----------------|---------------------|--------------------|
| Linde | Guildford, UK | 1879 | 72000+ | \$31 billion |
| <u>Air Liquide</u> | Paris, France | 1902 | 66400 | \$23.5 billion |
| Air Water | Osaka, Japan | 1929 | 10000+ | \$7.02 billion |
| Air Products and Chemicals | LeHigh Valley, PA | 1940 | 19275 | \$8.85 billion |
| Taiyo Nippon Sanso | Tokyo, Japan | 1918 | 19229 | |
| Messer Group | Bad Soden, Germany | 1898 | 10000 | |
| SOL Group | Monza, Italy | 1927 | 1,001-5,000 | \$724.8 million |
| India Glycols | Noida, India | 1983 | 1325 | \$380 million |
| Gulf Cryo | Dubai, UAE | 1953 | 1001-5000 | |
| Kaimeite Gases | Yueyang City, China | 1991 | 648 | |
| | | | | |

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Linde

Based in Guildford, UK, Linde offers a wide range of industrial gasses, including food grade, aquaculture, fumigants, pharmaceuticals, refrigerants, welding, and safety gasses. Among the forms of carbon dioxide they offer are solid, liquid, and gaseous.

Air Liquide

With its headquarters in Paris, France, Air Liquide serves a variety of industries, including industrial, healthcare, electronics, construction, engineering, and science. Providing food-grade carbon dioxide and dry ice, the company specializes in gasses and gas technology.

Air Water Company

Osaka, the Japan-based Air Water Company, offers industrial gasses, chemicals, logistics services, medical products, agricultural and energy products, as well as food and seawater supplies. A number of gasses are produced by them, including carbon dioxide, oxygen, nitrogen, and argon.

Air Products and Chemicals

Products offered by Air Products and Chemicals include carbon dioxide, carbon monoxide, argon, helium, nitrogen, oxygen, and others for the energy, environmental, and emerging markets. Lehigh Valley, Pennsylvania, is the company's headquarters.

Taiyo Nippon Sanso

A major focus of Taiyo Nippon Sanso is gasses, including medical, electronics, industrial, and energy gasses. The company also manufactures gas equipment and plants. Tokyo is the headquarters of the company.

Messer Group

Messer Group distributes nitrogen, oxygen, hydrogen, carbon dioxide, and carbon monoxide from Bad Soden, Germany. A number of industries are served by the company, including aquaculture, chemistry, biopharma, electronics, healthcare, oil & gas, food & beverage, metal, pulp & paper, and industrial applications.

SOL Group

SOL Group is a company based in Monza, Italy that provides medical gasses, biotechnology products, renewable energy, and home care services. The company distributes argon, oxygen, nitrogen, hydrogen, acetylene, carbon dioxide, helium, and nitrous oxide, among other gasses.

India Glycols

Noida is the headquarters of India Glycols. The company supplies chemicals, industrial gasses, spirits, natural gums, pharmaceuticals, and nutraceuticals. Cryogenic liquid carbon dioxide is distributed by the company, as is liquid oxygen, argon, and nitrogen.

Gulf Cryo

As one of the leading gas manufacturers in the Middle East, the company manufactures a wide variety of gas products. As an industrial, medical, and specialty gas supplier in Dubai, Gulf Cryo offers acetylene, solid and gaseous carbon dioxide, hydrogen, helium, and medical air.

Kaimeite Gases

Located in Yueyang City, China, Kaimeite Gasses specializes in solid, liquid, and gaseous carbon dioxide, including those used as food additives. Nitrogen, oxygen, argon, ammonia, and plastic products are also supplied by them in liquid and gaseous form.

Cold Jet

Two lines of business are centered around using recycled CO₂ as dry ice at Cold Jet. To the global manufacturing industries, they provide cleaning and surface preparation systems. As a blasting medium, dry ice particles are used. In addition, they manufacture systems for producing, metering, and packaging dry ice. Dry ice cleaning, ice transportation, and cold chain management are all possible with these systems.

Toolce Dry Ice Technologies

TooIce creates, designs, manufactures, solves, secures, and provides inspiration to help you create your bridge to possibilities through dry ice blasting, CO2 Snow Jet cleaning, and dry ice production.

By using non-abrasive, non-toxic, green, and innovative, time-efficient cleaning methods like dry ice blasting, manufacturing industries around the world can clean molds, prevent environmental pollution, prepare surfaces, and finish parts (deburr & deflash).

Aquila Triventek

Among the products manufactured by Aquila Triventek A/S are high-pressure cleaning machines, dry ice blasters, and duct cleaning equipment. Within this segment, Aquila Triventek A/S is one of the leading manufacturers with 35 years of experience and innovative ideas. Dry ice production equipment is also manufactured by Aquila Triventek A/S for cooling applications in the food and pharmaceutical industries.

ICS Ice Cleaning Systems

The ICS company has 20 years of experience in developing, manufacturing, selling, maintaining, and repairing dry ice blasting and dry ice making equipment.