



The potential of natural materials and science

Company Profile

For nature and mankind to coexist.

Supporting the enhancement of sustainable lifestyles through science—

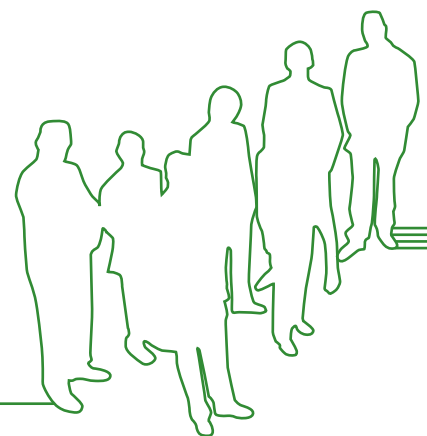
We are a leading company that upholds an environment-responsive-type business model.

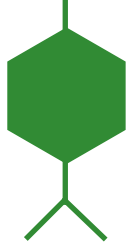


Yasuhara Chemical has pursued the potential of terpene technology, which uses the blessings of nature—turpentine oil and orange oil—as raw materials to develop safe, high-quality products. Terpene is produced through the biosynthesis process that takes place within a plant, and is found abundantly in nature. In order to ensure a plentiful and stable supply of this industrial material, large volumes of turpentine oil from pine trees and orange oil from orange peels are collected. Today, with the entire world involved in preventing further global warming, the industrial world has great expectations for terpene, a renewable material that is derived from plants and results in less carbon dioxide emission than petroleum-based products. Unlike petroleum, which will possibly become depleted in the future, terpene is a vitally important raw material derived from plants, which are repeatedly renewed through the blessings of the Sun. Yasuhara Chemical was the first company in Japan to establish an industrial production system for terpene resins through its unique technology. As the top chemical products manufacturer of terpene resins, we develop and supply products used in various fields, such as adhesive tapes, adhesives, fragrances, and polymer modifiers. The originality of our products has gained a high evaluation both domestically and overseas.

**As a creative company that fuses the blessings of nature with scientific technology, we seek to expand the fields that will improve industries and lifestyles.**

The production activities of Yasuhara Chemical are founded on this basic principle of a renewable and sustainable social cycle (a permanently renewable social cycle), in which we continuously strive for a sustainable future.





## Our track record of trust

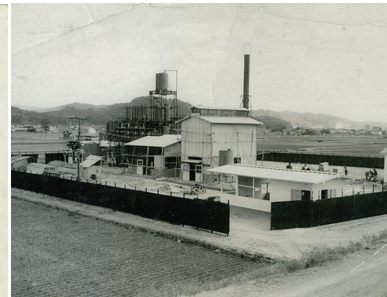
More than sixty years of pine oil production. Looking back, we see a continuing path made up of countless connections and trust.



Founding Members  
(Founder Hiromu Yasuhara / second from left)

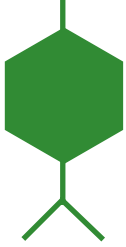


Chopping pine root



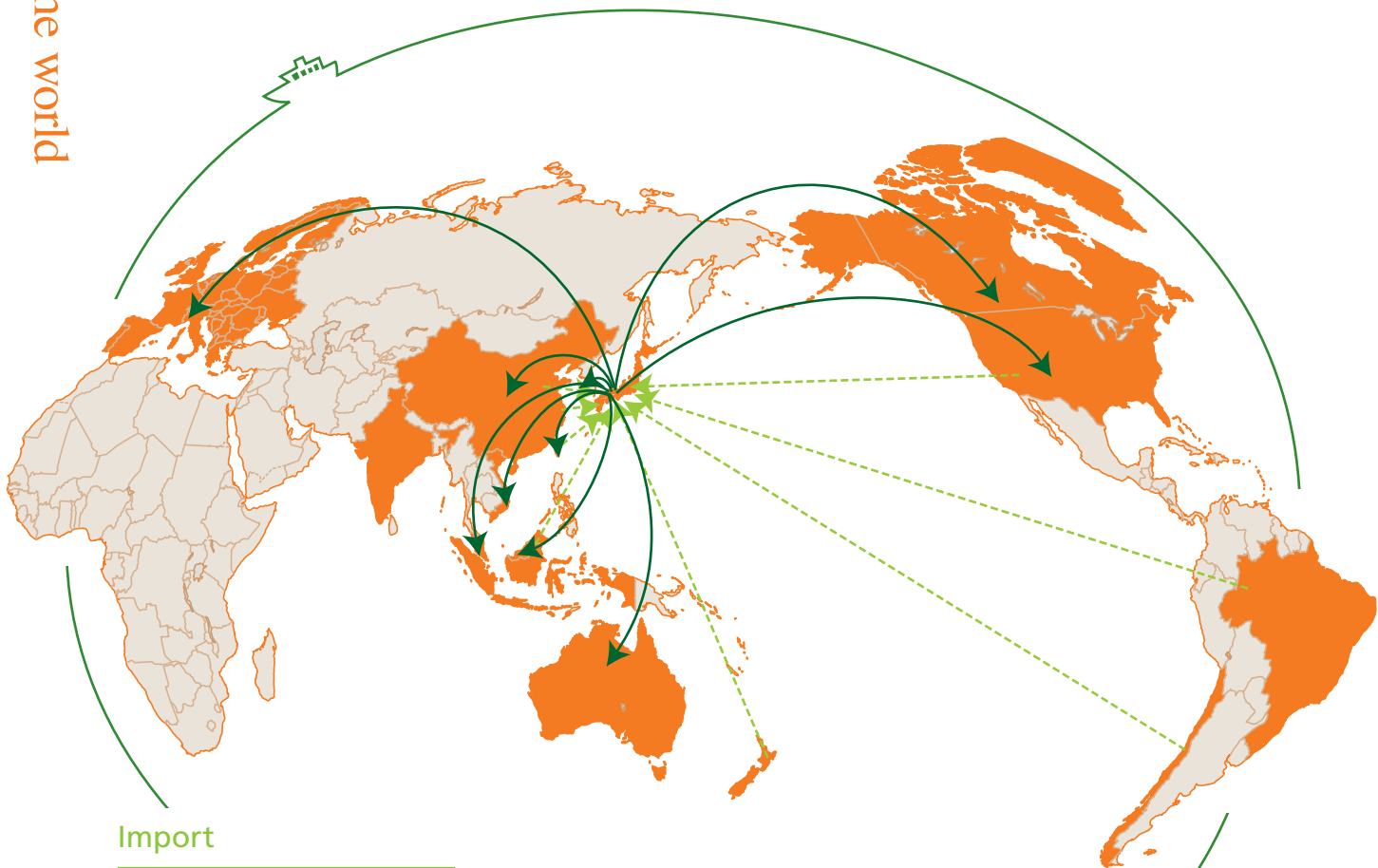
Early day of Takagi Plant

- 1946 Founder Hiromu Yasuhara discovers pine oil production
- 1947 Yasuhara Oil Refining Plant established (Konu-cho, Konu-gun, Hiroshima Prefecture, now known as Miyoshi City)  
Production of terpene, rosin, pine tar started
- 1949 Mesaki Plant established (a turpentine oil refining plant at Mesaki-cho, Fuchu City, Hiroshima Prefecture)
- 1959 Yasuhara Yushi Kogyo Co., Ltd. established (headquarters at Mesaki-cho, Fuchu City, Hiroshima Prefecture)
- 1960 Sendai Plant constructed (a paper sizing agent plant at Miyauchi-cho, Sendai City, Kagoshima Prefecture, now known as Satsumasendai City)
- 1961 Takagi Plant constructed (turpentine oil refining plant at Takagi-cho, Fuchu City, Hiroshima Prefecture)
- 1962 Tokyo branch Office opened
- 1966 Hot melt adhesive (HIRODINE) production starts at Mesaki Plant  
(Affiliated company Hirodine Plant)  
Hirodine Kygo Co., Ltd. established  
Hot melt adhesive business transferred from Yasuhara Yushi Kogyo
- 1969 Osaka Sales Office opened (now known as Osaka Branch Office)
- 1972 Research and development facility established
- 1977 Takagi Plant in YS Plant (terpene resin manufacturing equipment) constructed  
(Affiliated company YS)  
YS Co., Ltd. established (trade division of Yasuhara Yushi Kogyo and Hirodine Kogyo)
- 1980 (Affiliated company YS)  
Company name changed to Hirodine Co., Ltd.
- 1984 Niihama Plant constructed (turpentine resin refining plant at Kuroshima, Niihama-city, Ehime Prefecture)
- 1988 Laminated film facility constructed at Takagi Plant
- 1989 Company name changed to YASUHARA CHEMICAL Co., Ltd.
- 1995 Listed on Hiroshima Stock Exchange (merged into Tokyo Stock Exchange in 2000)
- 1996 Listed on 2nd Section of Osaka Securities Exchange (Delisted in 2003)
- 1997 Merger with Hirodine Kogyo Co., Ltd.
- 1999 Ukai Plant constructed (hot melt adhesive and laminated film plant at Ukai-cho, Fuchu City, Hiroshima Prefecture)
- 2000 Listed on 2nd Section of Tokyo Stock Exchange
- 2005 Merger with Hirodine Co., Ltd.
- 2007 Fukuyama Plant constructed (a special monomer manufacturing plant at Minooki-cho, Fukuyama City, Hiroshima Prefecture)
- 2010 Construction of research and development facility completed (within Fukuyama Plant)



## We have also built a high degree of trust with the rest of the world.

We import raw materials such as turpentine oil and oranges from China and South America. We process them into highly value-added products and distribute them both domestically and throughout the world. Products created through high technical skills are highly regarded overseas as well.

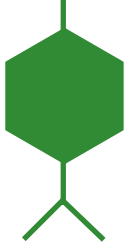


### Import

United States of America, República Federativa do Brasil, Republic of Chile, People's Republic of China, New Zealand

### Export

United States of America, Canada, European Union, People's Republic of China, Republic of Korea, Taiwan, Malaysia, Republic of Singapore, Commonwealth of Australia



# Expanding our production facilities Business network

## Ukai Plant

Product item:  
Hot melt adhesive  
Lamination film



## Fukuyama Plant

Product item:  
Chemical products



## Soryo Plant

Product item:  
Hot melt adhesive



## Head Office



Shimane

Hiroshima

Okayama

Syobara-city

Soryo Plant

Ukai Plant

Fuchu-city

Head Office

Fukuyama-city

Fukuyama Plant  
Research and development building

Hiroshima-city

Map details

## Niihama Plant

Product item:  
Terpene resin  
Chemical products



Research and development building

To address the issues and needs of our customers.  
That is the foundation of research and development.

The foundation of our research and development is the perspective of our customers.

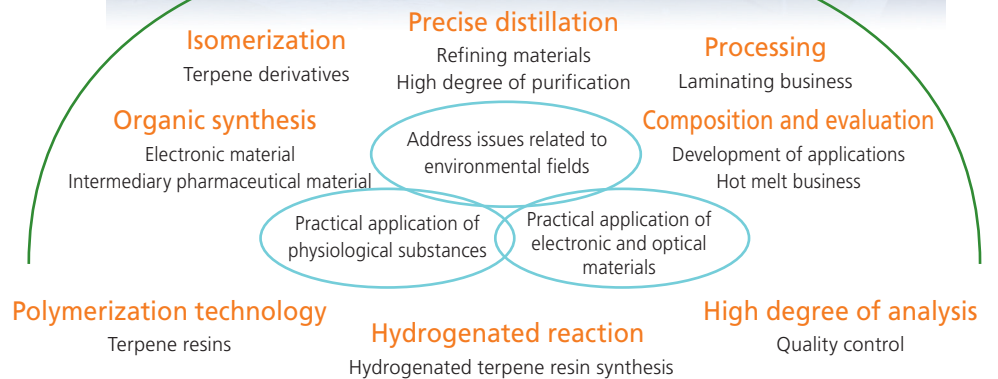
Our research and development starts with our understanding the products of our business partners and sharing their values.

The focus of research and development at Yasuhara Chemical is our creative technology, which enhances added value by drawing out the properties of raw materials. Terpene, derived from a natural material, is environmentally-friendly and functions fundamentally as a renewable material. By optimizing this fundamental function and applying our creative technology to address our customers' issues and social needs, we have succeeded in creating completely new products. We try to be better partners by supplying truly highly value-added products. Our research and development strive for this, the result of which is the high credibility we have developed.

In 2010, with the objective of further enhancing the "Safety," "Communication," and "Creativity" of our research and development, a new research and development building was put into operation as part of our commitment to focusing on cutting-edge issues and technology development.

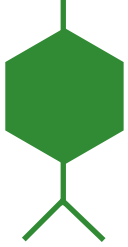


Core technology of Yasuhara Chemical



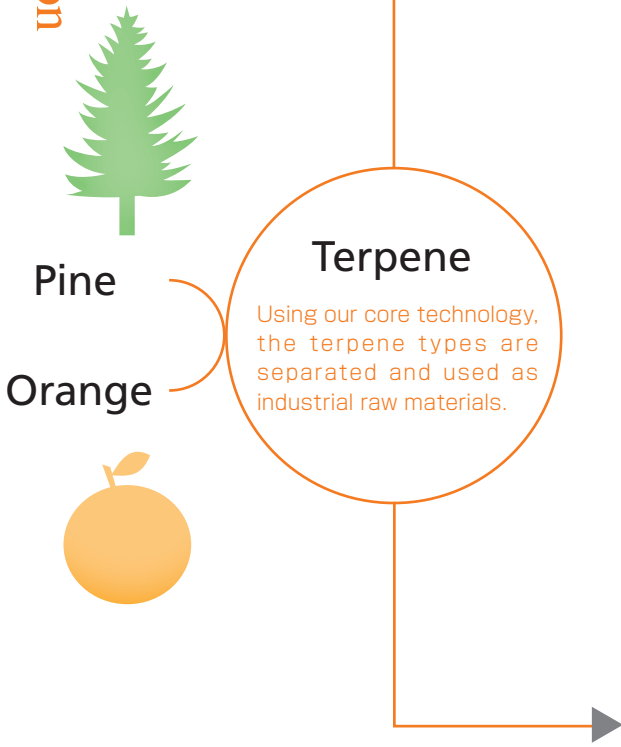
Tokyo Branch Office

Osaka Branch Office



Product information

The fusion of natural raw materials and scientific technology generates a wide variety of products.



## Terpene resin

Our key product, terpene resin, is known as a tackifying resin. When terpene resin is combined with various polymer materials such as natural rubber or styrene elastomer, adhesive properties are drawn out as a result of the plasticizing action. It is indispensable in the manufacture of adhesives and tackifiers.

In addition to terpene resin, which is produced using only the renewable material terpene monomer, our line-up ranges from low softening point to high softening point products such as aromatic modified terpene resin and terpene phenolic resin, which display excellent compatibility with high polarity polymer materials such as acryl by copolymerization with petroleum-based components.

Furthermore, hydrogenated terpene resins, which are hydrogenated grades of various terpene resins and aromatic modified terpene resins, with their excellent color hues, thermal stability, and weather resistance are highly regarded in many industries as 'natural' tackifiers for their adhesive components and as modifying agents for various polymers.

### [Applications]

- Tackifiers, Adhesives
- Modifier of polyolefins
- Ink
- Modifier of various polyolefins
- Paints
- Sealants

## Chemical products

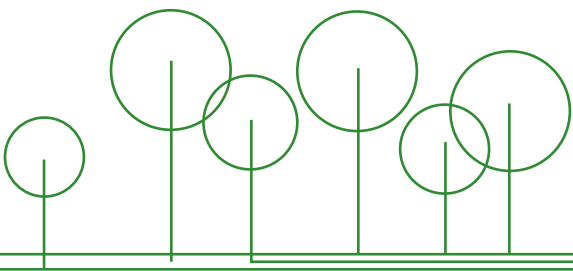
Turpentine oil extracted from plants is used as a starting material for a variety of synthetic fragrances.

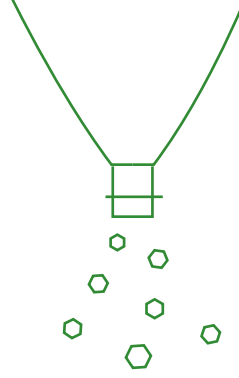
Our gum turpentine and  $\alpha$ -pinene essential oils are derived from pine trees. Derivatives of these products, such as terpineol, myrcene, and allo-cimene, are also produced and supplied as raw materials for fragrances used in toiletries including detergents and soaps, toothpaste, and bath agents. These naturally derived solvents have characteristic properties not found in petroleum-based solvents, and thus are attractive in many different applications and markets, including the IT industry.

D-limonene, a main component of the essential oil derived from citrus fruits (orange oil), is used not only in fragrances, air fresheners, and masking agents, but also as a cleaning component in detergents.

### [Applications]

- Fragrances
- Solvents
- Electronics
- Vehicle for pastes





## Hot melt adhesive

Our hot melt adhesives improve productivity in various industries such as food, packaging, automobiles, and construction materials by enabling adhesion or sealing of substrates without the use of solvents. They also contribute toward resolving environmental issues such as conservation of energy and increase consumer convenience.

Production of a wide range of hot melt adhesives with viscosities ranging from low to super high from polyolefin bases to special elastomers is available to meet the various needs of our customers. We also provide novel solutions for adhesives.

### [Applications]

- ◎Packaging
- ◎Food package, Easy peelable lid
- ◎Sealing, Rubber based PSA
- ◎Assembly for automotive
- ◎Life supply, Permanent PSA
- ◎Air filter
- ◎Cushioning Material, Plastic corrugate board
- ◎Hand gun application

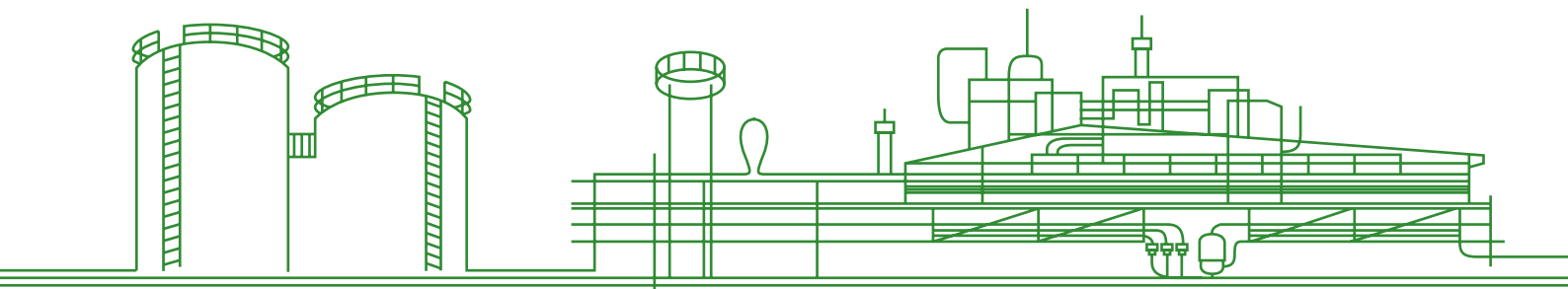
## Lamination film

HIROTAC film provides a gloss finish. It is produced by laminating biaxially-oriented polypropylene (OPP) film with our unique adhesive resin. It is a pre-coated film that is designed to enable easy thermal lamination for the beautification and protection of surfaces such as printed paper, synthetic paper, and plastic film. Its three major characteristics include the following:

1. Easy lamination by heating and pressing HIROTAC to an adherend.
2. Vivid, glossy finish with excellent adhesion.
3. No use of organic solvents for a comfortable and safe work environment.

### [Applications]

- ◎Gloss finish of printed materials



# Terpene resin

Product type	Product name
Terpene Resin	YS Resin PX, PXN
Aromatic Modified Terpene Resin	YS Resin TO
Terpene Phenolic Resin	YS Polyester U, T, S, G, N, K and TH
Liquid Resin	Dimerone, YS Resin LP
Styrene Resin	YS Polyester SX
Emulsified Resin	Nanolet T1050, TH130
Hydrogenated Terpene Phenolic Resin	YS Polyester UH

## Development of applications



YS Resin TO 125



Pressure sensitive tape



PSA for labels



Plastic modification



Hot melt adhesive

# Chemical products

Product type	Product name
Solvents, Raw materials for fragrances	Gum Turpentine N $\alpha$ -Pinene $\beta$ -Pinene Myrcene D-Limonene Dihydro Terpeneol Terpeneol P-Menthane
Low molecular weight polyethylene wax	Neowax
Vehicles for pastes	

## Development of applications



D-Limonene



Citrus fragrance raw materials  
Solvents



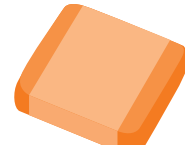
Neowax



Traffic paint



Vehicles for pastes



Multilayer chip capacitors

# Hot melt adhesive

Product type	Product name
Hot melt adhesives for packaging	Hirodine 2000 series
Rubber-based Hot melt PSAs/adhesives	Hirodine 1000 series Hirodine 5000 series
Hot melt adhesives for air filters	Hirodine 2000 series Hirodine 8000 series
Hot melt adhesives for cushioning	Hirodine 1000 series Hirodine 8000 series
Hot melt adhesives for coating	Hirodine 7000 series
Stick-type Hot melt adhesives	Hirodine ST series

## Development of applications



Assembly



Packaging



Sealing material



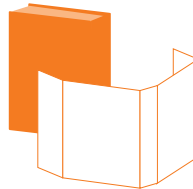
Extrusion lamination

# Lamination film

## Product name

Hirotac series

## Development of applications



Decorations

Yasuhara Chemical is seen even in a place like this.  
Used in many aspects of life.





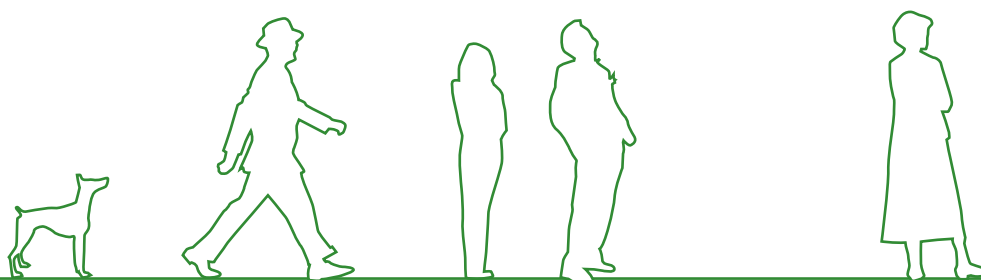
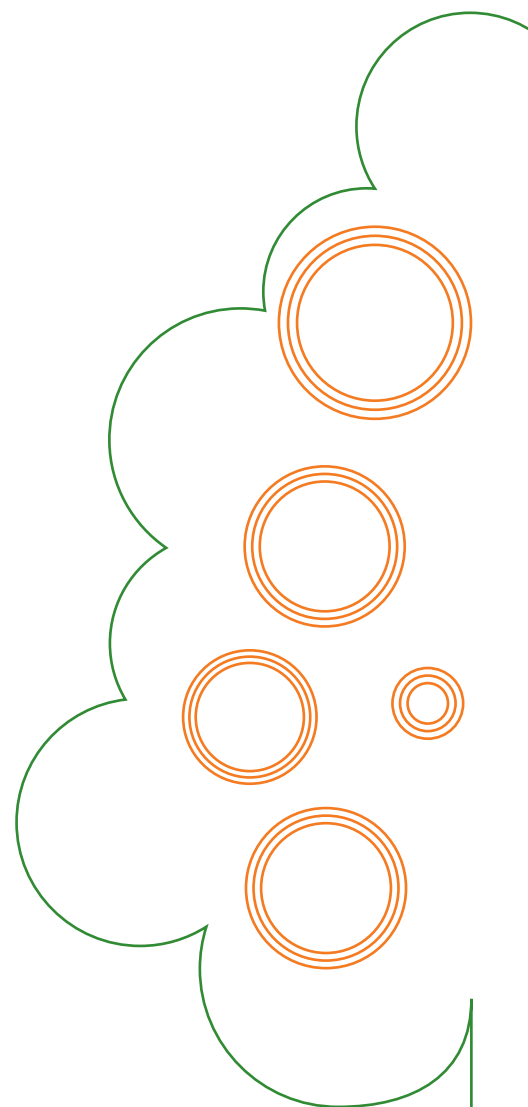
## We are engaged in various activities to achieve a sustainable lifestyle and society.

At Yasuhara Chemical, we wish to contribute to building a sustainable and abundant environment by taking the environment into account in all aspects of our corporate activities, from the purchase of raw materials to manufacturing, distribution, and sales.

To that end, in 2006 we drew up a Fundamental Policy on Environment and Safety, and in December of each year, we hold an environment security meeting. The meeting consists of reporting the results of activities and discussing the key objectives regarding environmental and safety issues for the next fiscal year. Key objectives are expressed through numerical targets as much as possible to enable an objective assessment of achievement rate. In addition to this target, all our plants also set 3-year medium-term targets for continuously engaging in activities that improve the environment.

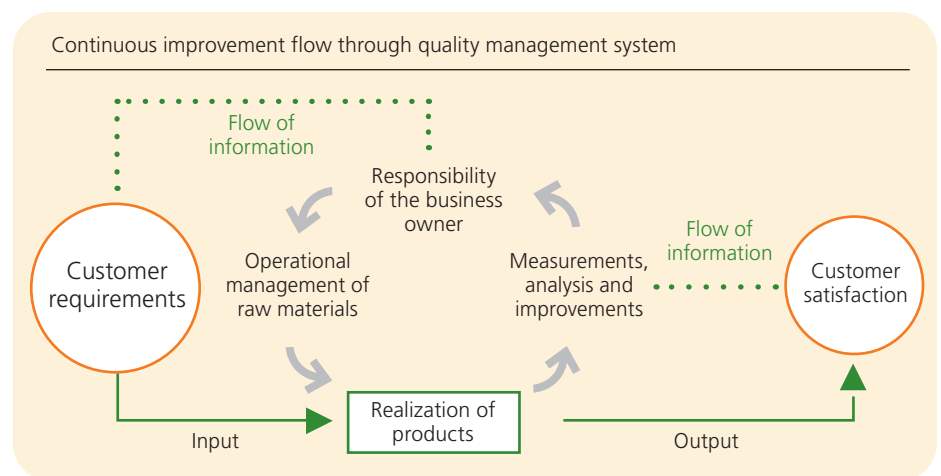
### (Fundamental Policy on Environment and Safety)

1. Contribute to society by providing products that promote environmental protection (conservation of resources, recycling, elimination of substances harmful to health) in all industrial fields by developing safe products that reduce the burden on the environment through the effective utilization of natural substances.
2. Every effort shall be made to protect the environment by reducing the environmental burden across the entire life cycle from product development to disposal.
3. Ensure the safety of our employees and the local community by continuing to operate accident-free and hazard-free.
4. Ensure the safety of materials and products to protect the health of our employees, distributors and customers from hazardous substances.



## Yasuhara Chemical's Quality management system ISO 9001

Our company acquired ISO 9001, the first principle of which is the continuous provision of high-quality products and services. We are proactively engaged in quality management based on ISO9001 to achieve a higher level of trust and customer satisfaction.



## Environment management system ISO 14001

We believe that reducing the environmental burden is critical for sustainable development. To that end, we have applied the environment management system throughout the company to conserve energy, prevent global warming, and curtail industrial wastes. Specifically, every year, various issues such as energy conservation measures, CO<sub>2</sub> emission reduction, emission and transfer volume of substances subject to PRTR, and consigned volume of industrial waste disposal are presented in numerical data in a report on the environment.

## Acquired ISO certification

Ukai Plant	...	ISO9001	ISO14001
Fukuyama Plant	...	ISO9001	
Soryo Plant	...	ISO9001	
Niihama Plant	...	ISO9001	ISO14001

Company name	YASUHARA CHEMICAL Co., Ltd.
Foundation	April, 1947
Establishment	February 24, 1959
Representative	Representative Director President Teiji Yasuhara
Paid-in capital	1,789,560,000 yen
Securities code	4957 (second sections of the Tokyo Stock Exchange)
Fiscal Year	March 31
Number of employees	245 (as of March 2021)
Address	1080 Takagi-cho, Fuchu-city, Hiroshima 726-8632 Japan
Switchboard number	+81-847-45-3530
Direct connect telephone for sales	+81-847-44-6070
Switchboard fax number	+81-847-45-8639
Direct connect fax for sales	+81-847-44-6080
Homepage address	<a href="http://www.yschem.co.jp/">http://www.yschem.co.jp/</a>

## Business Office, Office

[Tokyo Branch Office]

5th floor Mitsui Sumitomo Kaijyo Tepco Bldg., 1-6-1, Kyobashi,  
Chuo-ku, Tokyo 104-0031 Japan

Sales Department

TEL:+81-3-5159-3411 FAX:+81-3-5159-3422

Procurement Department

TEL:+81-3-5159-3870 FAX:+81-3-5159-3880

[Osaka Branch Office]

2th Floor Shin-Osaka Daiichi Seimei Building, 3-5-24 Miyahara,  
Yodogawa-ku, Osaka City 532-0003 Japan

TEL:+81-6-6210-6771 FAX:+81-6-6210-6772

## Plants

[Ukai Plant]

800-111, Ukai-cho, Fuchu-city, Hiroshima 726-0002 Japan

[Fukuyama Plant]

117, Minooki-cho, Fukuyama-city, Hiroshima 721-0956 Japan

[Soryo Plant]

1065-1, Kamedani, Soryo-cho, Syobara-city, Hiroshima 729-3702 Japan

[Niihama Plant]

1-7-7, Kuroshima, Niihama-city, Ehime 792-0892 Japan

## Delivering renewable material in a value-added form.

Since its establishment, our company has supplied terpene as a safe and high-quality product derived not from fossil fuel but from nature.

Fossil fuel will not only be depleted eventually, but it poses severe problems that lead to destruction of the environment. This is no longer an era of mass production of low-priced goods. Mankind is starting to reassess the state of societies based on fossil fuel. In the midst of this, attention is turning to terpene as a renewable material. What the next generation seeks are sustainable industrial activities that rely on renewable materials. This is what Yasuhara Chemical has been pursuing for many years.

We have also placed great value on the concept of “going hand in hand together.” We take pride in having built trust with our customers by providing what the customer truly seeks and superior products through our research-and-development efforts based on an understanding of our customers’ products and sharing their values. These highly value-added products that were generated from such interactions with our customers have gained global acceptance. This is the long-awaited shift in the social paradigm that we would like to have in order to propel us forward together with a shared vision of how to realize a sustainable and bountiful future.



Representative Director President

**Teiji Yasuhara**

