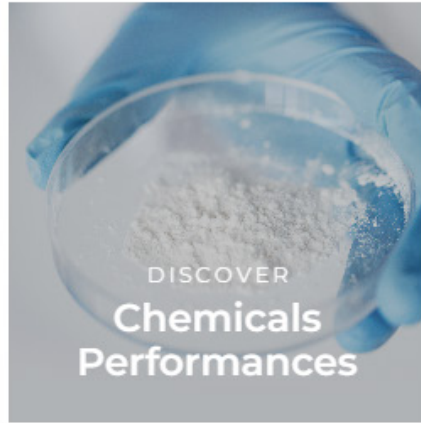
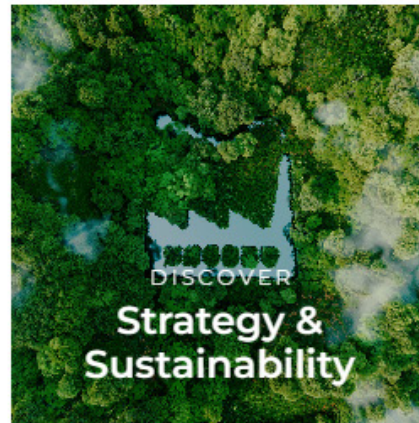




YOUR NATURAL PARTNER



What's **INSIDE**
make the
DIFFERENCE



camlinfs.com

CFS Europe

DISCOVER OUR REALITY

Turning to CFS Europe means **CONSTANTLY INTERACTING** with consultants and experts. Our goal is to provide advice and solutions to improve the shelf-life and performance of your products.

CFS Europe listens constantly to understand the needs of the companies. We build relationships based on constant exchange, with the goal of providing dedicated and customized antioxidants solutions.

In conclusion, CFS Europe welcomes its clients' challenges not like a supplier would, but a consultant and reliable partner committed to solving a common theme.

The **SCIENTIFIC APPROACH** cannot transcend a solid human connection, involving a side-by-side presence to become one of the best resources for any company.

What's INSIDE make the DIFFERENCE



CFS EUROPE PROVIDES

CFS provides solutions

Our job is to deliver answers: we are methodical, systematic and **scientific in thoroughly analyzing our client's demands because evaluation is the first step to providing solutions.** As a result, our products guarantee a significant shelf-life extension and always prioritize our client's success and satisfaction.

CFS provides support

CFS Europe is not just a supplier but a reliable partner, an **expert who gives advice and professional consultation in goal planning assistance.**

Our clients know that they can always count on us, as we are constantly by their side both as suppliers and advisors: that is what makes us one of their best resources for their success.

CFS provides new approach

Our customer-centric approach starts from our clients' needs: we learn from our customers and improve our products accordingly. We provide a wide range of products, customized solutions according to specific requests, **and a versatile think-outside-the-box attitude.**

CFS provides information

Transparency, clarity and reliability are crucial in the current transition from synthetic to natural materials. We are honest and we guarantee complete openness in terms of product description, operating in such a way that allows our clients always to see what we do, how and why.

To us, transparency is communication, openness and accountability. In a market where the brand name does all the job, we let our candidness speak for us.



Mission

A NEW IDEA OF CUSTOMER-CENTRIC APPROACH

Our mission is to provide diversified, high-quality, innovative solutions that ensure a significant extension of shelf-life in the food industry, animal nutrition, pet food, pharmaceuticals, and petrochemicals.

Vision

WE ARE A LONG-LIFE PARTNER

We are flexible by nature and choice. We prefer to leave room for the customer instead of proposing standardized solutions.

We are methodical, systematic and scientific in our in-depth analysis of our client's requests because we know that a proper evaluation is the first step to providing solutions.

Value

OUR CONCEPT OF INNOVATION RESULTS FROM TRUST

Producing antioxidants and chemical solutions currently means thinking and operating as respectfully as possible and seeking more sustainable natural alternatives with the same high standard.

SHELF-LIFE SOLUTIONS

LOOKING FOR A SHELF-LIFE SOLUTIONS?

MORE SOLUTIONS. BETTER VALUES.

Oxidation is a primary concern to food, pet food, aquafeed, premix and animal feed manufacturers.

Rancidity, off-flavors, discoloration, palatability loss, and destruction of essential fatty acids and nutrients are some of the consequences of lipid oxidation.

KEEP YOUR PRODUCTS FRESH, NUTRITIOUS, AND TASTY FOR LONGER.

Many factors affect the shelf life stability of rendered pet food ingredients including heat, oxygen, pH, moisture, presence of metal ions and unsaturated fats, oxidizing and reducing agents, process conditions and storage time, among others.

Protect the oxidative stability of your rendered pet food ingredients with **Xtendra™** and **NaSure™** antioxidant solutions from Camlin Fine Sciences.





ROSEMARY EXTRACT

- Natural extracts from the leaves of *Rosmarinus officinalis*
- Active ingredients: Carnosic and Acid Carnosol (Phenolic Diterpenes)
- Commercially available in several forms:
 - Powders
 - Oil soluble/dispersible
 - Water soluble/dispersible
- Flavorless/odorless, organic



GREEN TEA EXTRACT

- Green tea is derived from *Camellia sinesis leaves*
- Green tea and its extracts are rich in polyphenolic compounds with strong antioxidants and free radical scavenging properties
- Low color / flavour impact



MIXED TOCOPHEROLS

- Natural extract from soybean oil
- Active ingredients: α β γ δ – tocopherols
- Non-GMO

APPLICATIONS OF SHELF-LIFE SOLUTIONS

Food oxidation level
WITHOUT ANTIOXIDANTS

Food maintenance level with
NASURE and XTENDRA

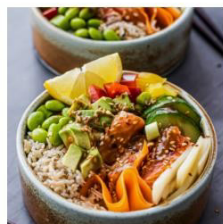


What's INSIDE make the DIFFERENCE

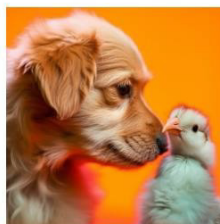
KEEP YOUR PRODUCTS FRESH, NUTRITIOUS AND TASTY FOR LONGER.

Oxidation is a primary concern to food, pet food, aquafeed, premix and animal feed manufacturers. Rancidity, off-flavors, discoloration, palatability loss, and destruction of essential fatty acids and nutrients are some of the consequences of lipid oxidation.

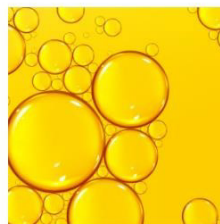
applications



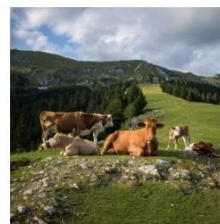
Food



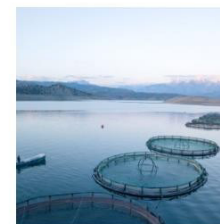
Pet food



Rendering



Premix



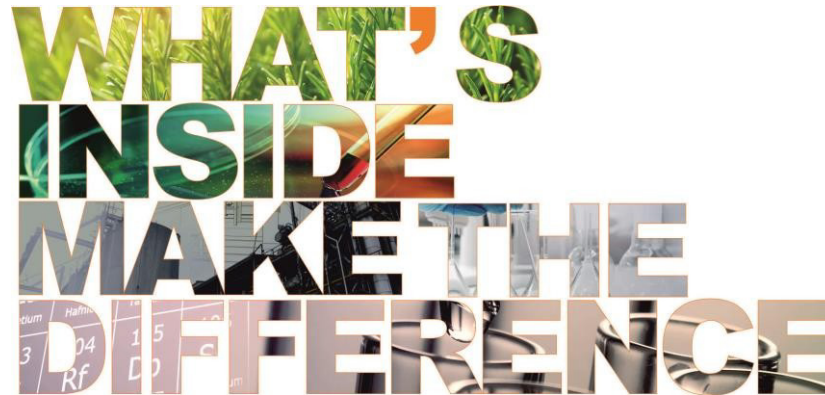
Aquaculture

Rising demand for **healthy, nutritious, and natural products** greatly impact the animal nutrition market and the antioxidants, which manufacturers are likely to prefer.

Traditional synthetic antioxidants such as **BHA, BHT, propyl gallate, ASCORBIL PALMITATE** are components of highly active **Xtendra®** solutions with attractive cost-in-use ratios.

[DISCOVER](#)

[DISCOVER](#)



SHELF LIFE DETERMINATION

We can perform accelerated shelf life determination of our clients products, liquid (oils, margarines, etc). Oxidative stability is done by means of **OXITEST** and **RANCIMAT**.

NaSure

Extending Shelf Life Naturally

Our **NaSure™** plant-based antioxidant solutions offers a natural alternative in shelf-life extension. We use natural ingredients with high antioxidant activity to ensure that your food stays fresher, longer.

CFS can create the **tailor-made solution** you want with the high-quality standards you need.

NaSure™ antioxidants

- . Mixed Tocopherols
- . Rosemary Extract
- . Other natural plant-based extracts & natural blends

APPLICATION STUDIES

Use our **NaSure®** blends with confidence.

CFS blends provide the ease of use needed in modern manufacturing and get the most from natural products.

In liquid or dry form, we deliver synergistic combinations of natural antioxidants at the optimal use level.

Consider our blends of tocopherols, rosemary, green tea, acerola, or other plant sources for your toughest oxidation challenges.

Product Name	Rosemary Extract	Mixed Tocopherols
Liquid Blends		
NaSure® 06	•	
NaSure® 18	•	
NaSure® 26	•	
NaSure® 50		•
NaSure® 66 Organic	•	
NaSure® 70		•
NaSure® 136	•	
NaSure® 137	•	
NaSure® 138	•	
NaSure® 550	•	•
NaSure® 551	•	•
Dry Blends		
NaSure® 21		
NaSure® 25		
NaSure® 58		
NaSure® 88	•	
NaSure® 580	•	•



FRESH MEET,
PROCESSED MEET,
POULTRY



PROCESSED FOOD,
SNACKS, NUTS,
CEREAL



FATS
OILS



DRESSING, BRINES,
MARINADES



SPICES



PETFOOD
PETFOOD INGREDIENTS

Xtendra™

shelf life solutions

TRADITIONAL ANTIOXIDANTS SOLUTIONS

Lipid oxidation is a natural process that involves the formation of free radicals, peroxides, and decomposition products.

Protect the stability of your products with the **Xtendra™** range of traditional antioxidant solution from Camlin Fine Sciences. For over 30 years, **Xtendra™** traditional antioxidants have been relied upon globally to provide dependable, consistent and economical shelf life solutions.

Only CFS can offer the stability that comes with vertical integration and complete control of the antioxidant production process.

From straights to blends, CFS gives the formulator the ability to use **customized solutions to achieve even the most difficult shelf-life requirement**. Look to CFS for TBHQ, BHT, Propyl Gallate and Ascorbyl Palmitate based solutions.

Our **Xtendra™** range of traditional antioxidant solutions combine ingredients that have been long proven to protect the oxidative stability of your final product.

- . TBHQ (FCC and Tech)
- . BHA (FCC)
- . BHT (FCC)
- . Ascorbyl Palmitate
- . Propyl Gallate
- . Traditional liquid blends

ANIMAL NUTRITION		Xtendra™ shelf life solutions									
		S10	S11	S23	S25	S27	S28	S32	S36	S38	S49
FORM		LIQUID	LIQUID	LIQUID	LIQUID	DRY	LIQUID	DRY	LIQUID	LIQUID	LIQUID
APPLICATION		BHA BHT	BHA BHT	BHA BHT	BHA	BHA BHT	BHA	BHA	BHA PROPYL GALLATE CITRIC ACID	ASCORBYL PALMITATE TOCOPHOLS	BHA
OILS & FATS		✓	✓						✓	✓	
MEAL		✓	✓								
FISH MEAL		✓	✓								
PREMIX						✓		✓			
COOKER RENDERING		✓	✓	✓		✓					
PET FOOD		✓	✓		✓	✓		✓		✓	✓
AQUAFEED			✓		✓			✓		✓	✓

ANTIOXIDANTS APPLICATION



PROCESSED MEET



SNACKS - NUTS



FATS - OILS



BAKERY MIXES



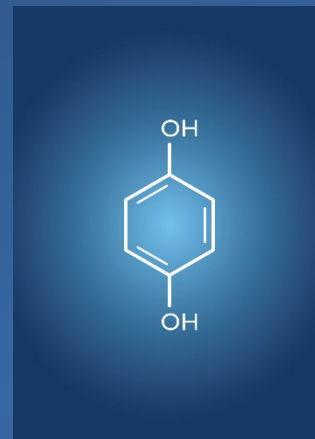
SPICE BLENDS

Performance Chemicals

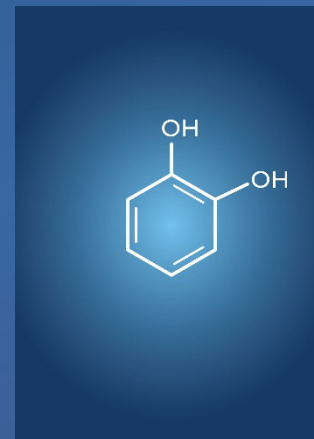
INTO THE CHEMICALS

DISCOVER OUR PRODUCTS

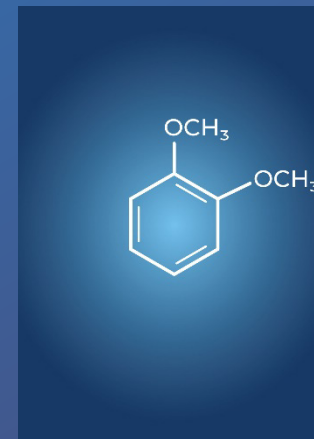
HYDROQUINONE



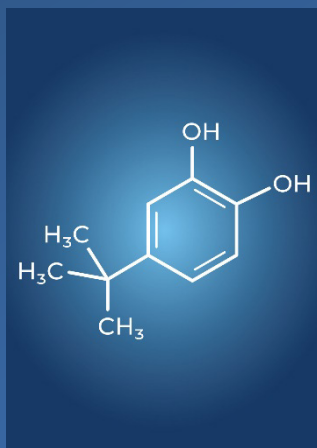
CATECHOL



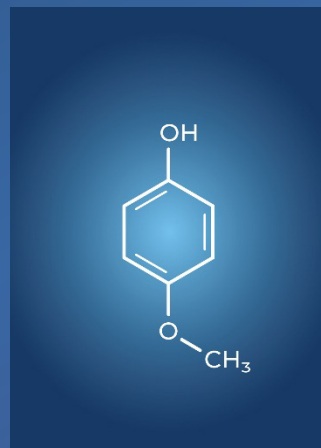
VERATROLE



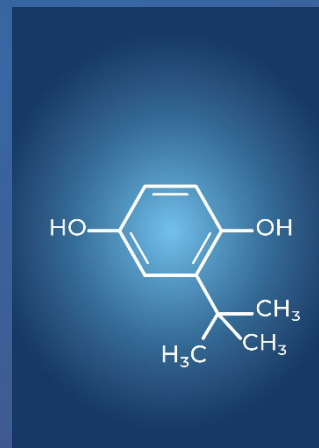
4-TERT
BUTYL CATECHOL



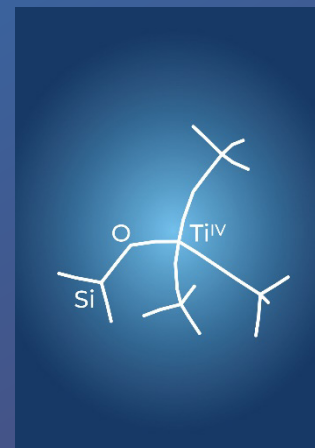
P-METHOXYPHENOL



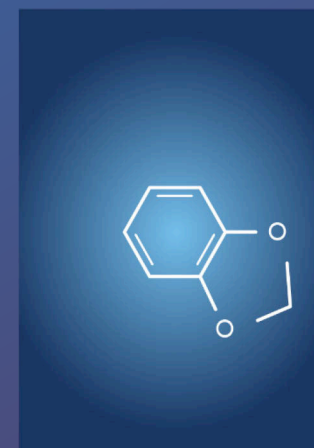
TERT-
BUTYLHYDROQUINONE



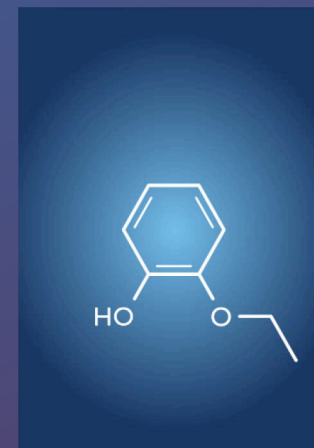
TITANIUM SILICALITE



1,3-BENZODIOXOLE



GUETHOL



Performance Chemicals

HYDROQUINONE CHEMICAL PRODUCT

Hydroquinone is an aromatic product that find application in many sectors of the chemical industry like pharma, rubber, plastic. It is used as chemical intermediate or as it is.

Hydroquinone is produced by hydroxylation of phenol with hydrogen peroxide in presence of Titanium Silicalite.

HYDROQUINONE



The efficiency of **hydroquinone** as a **stabilizer** helps maintain the quality and desired properties of chemicals, thereby **reducing waste** and improving the **sustainability** of industrial processes.

Applications

- Agriculture intermediates
- Case and carton closures
- Dyes / pigments / paints
- Flame retardants
- Graphic arts
- Herbicides - intermediate for other
- Intermediates
- Kitchen & bath
- Methyl methyl acrylate (mma)
- Molding & trim interior
- Paints & coatings
- Peek (polyether ether ketone)
- Photographic chemicals
- Photographic supplies
- Polymer modification
- Polymer processing
- Process solvents
- Resins
- Rubber modification
- Specialty chemicals
- Water treatment industrial

More info about it

Hydroquinone, boasting a **high purity level of over 99.5%** and presented as **white crystals**, is available in **25 kg bags** and larger quantities contained in **big bags**, with **Italy** being the primary manufacturing site for this product.



Specifications

Purity: > 99.5%
Aspect: white Crystal



Available packaging

25 kg bags
Big bags



Manufacturing site

Italy

Performance Chemicals

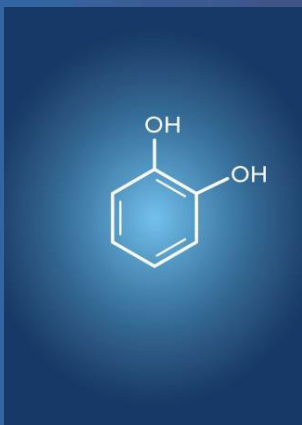
CATECHOL CHEMICAL PRODUCT

Catechol is a very versatile intermediate.

It can be used for the synthesis of **several products that find application in many sectors of the chemical industry**, like pharma, flavors and fragrances, agrochemicals, polymers.

Some examples are L-DOPA, Carbofuran, Hydroxytyrosol, Vanillin. Catechol is produced by hydroxylation of phenol with hydrogen peroxide in presence of Titanium Silicalite.

CATECHOL



Beyond its industrial uses, catechol is of **environmental significance**; it occurs naturally in various **plants** and plays a role in the metabolic processes of certain bacteria and fungi, underscoring its integral role in the **Earth's ecological systems**.

Applications

- Flavour Manufacturing
- Pharma / Nutraceuticals
- Perfumes & Fine Fragrances
- Agrochemicals

More info about it

Manufactured in **Italy**, is noted for its **high purity level** of over 99.5%. It is available in forms ranging from white to brownish flakes and is packaged in **25 kg bags, larger bags**, or can be supplied in **bulk** as a molten substance.



Specifications

Purity: > 99.5%
Aspect: white to brownish flakes



Available packaging

25 kg bags
Big bags
Bulk (molten form)



Manufacturing site

Italy

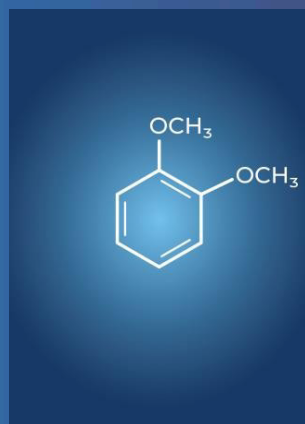
Performance Chemicals

VERATROLE CHEMICAL PRODUCT

Veratrole is an aromatic product mainly used to produce pharma products.

It is produced by methylation of Catechol.

VERATROLE



Our industry is at the forefront of optimizing these reactions, ensuring **maximum efficiency** and **sustainability** in the production process.

Applications

- Flavour Manufacturing
- Pharma / Nutraceuticals
- Perfumes & Fine Fragrances
- Agrochemicals

More info about it

Veratrole boasts an **impressive purity level exceeding 99.5%** and is in liquid form, with packaging options including **bulk** quantities or **drums**, all of which are manufactured in **India**.



Specifications

Purity: > 99.5%
Aspect: liquid



Available packaging

Bulk
Drums



Manufacturing site

India

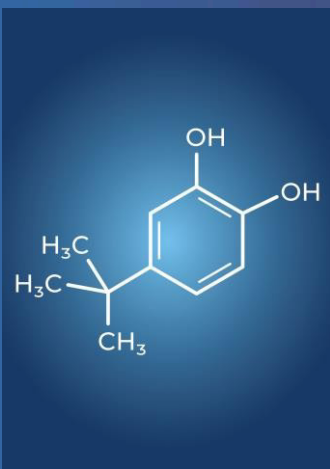
Performance Chemicals

4-TERT BUTYLCATHECOL CHEMICAL PRODUCT

4-tert-butylcatechol (4-TBC) is the butylated derivative of Catechol.

It is mainly used as polymer inhibitor for styrene e butadiene. 4-TBC is produced by tert-butylation of Catechol.

4-TERT BUTYLCATHECOL



4-TBC is available in its pure form (99%) or in formulations with methanol, water, or toluene.

Applications

- Petrochemicals
- Polymers
- Flavour Manufacturing

More info about it

4-TBC is packaged in IBC containers and drums when in its pure form. The manufacturing site is located in **India**, while the formulation and storage processes take place in **Italy**.



Specifications

4-TBC is available as it is (99%) or in formulation with methanol, water, toluene.



Available packaging

IBC (formulated TBC)
Drums (pure product)



Manufacturing site

India
Formulation and storing: Italy

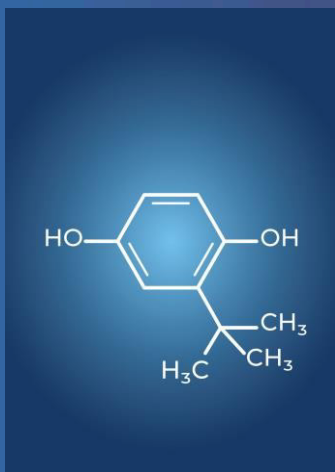
Performance Chemicals

TERT-BUTYLHYDROQUINONE CHEMICAL PRODUCT

Tert-butylhydroquinone (TBHQ) is the **butylated derivative of Hydroquinone**.

It is mainly used in food industries but is also find application in inks and rubber sectors.

TERT-BUTYLHYDROQUINONE



In addition to the food industries, it has applications in the **ink industry**, where it is used to improve the stability and durability of inks. In the **rubber industry**, it is used to prevent oxidation and improve the durability of rubber products and also in the **perfume industries**, it is used as a fixative to increase the persistence of fragrances.

Applications

- Acrylic acid
- Commerical printing inks
- Intermediates
- Kitchen & bath
- Molding & trim interior
- Paints & coatings
- Photographic supplies
- Protective coatings

More info about it

Tert-butylhydroquinone is a high-purity (>98%) white crystalline substance, available in various packaging options including 20 kg bags, boxes, and big bags, and is manufactured in India.



Specifications

Purity: > 98%
Aspect: white crystalline



Available packaging

20 kg Bags, box
Big bags



Manufacturing site

India

Performance Chemicals

P-METHOXYPHENOL (MEHQ) CHEMICAL PRODUCT

P-methoxyphenol (mequinol, HQME, 4PMP) is the mono-methylated derivative of Hydroquinone.

It is mainly used as polymerization inhibitor for acrylates and styrenes.

P-METHOXIPHENOL



Characterized by a methoxy group in its para position, it is primarily used as a **polymerization inhibitor** for acrylates and styrenes.

Applications

- Petrochemicals
- Polymers
- Agrochemicals

More info about it

P-methoxyphenol, with a purity of over 99% and appearing as white flakes, is available in **20 kg drums** and is manufactured in **India**.



Specifications

Purity: > 99.5%
Aspect: white flakes



Available packaging

20 kg drums



Manufacturing site

India

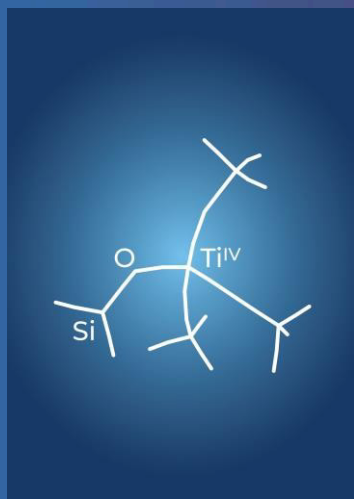
Performance Chemicals

TITANIUM SILICALITE CHEMICAL PRODUCT

Titanium Silicalite (TS-1) is zeolytic type catalyst containing Silica and Titanium.

It is use as a catalyst for many chemical reactions that involve hydrogen peroxide as oxidation agent.

TITANIUM SILICALITE



More info about it

Titanium silicate is available in powder form, packaged in drums ranging from 20 to 50 kg, and is manufactured in **Italy**.



Specifications

Powder form



Available packaging

from 20 to 50 kg drums



Manufacturing site

Italy

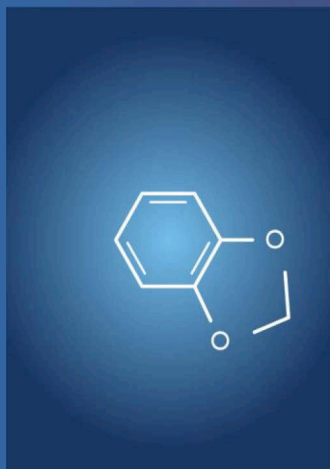
Performance Chemicals

1,3-BENZODIXOLE (MDB)

CHEMICAL PRODUCT

MDB is a versatile chemical intermediate used for the manufacturing of pharmaceuticals and complex organic compounds (aroma, agro, etc...)

MDB



Applications

- Pharma
- Insecticide
- Aroma

More info about it

MDB, a clear liquid with a purity > 99.5% is available in bulk and small container.



Specifications

> 99.5%



Available packaging

bulk (isotank)
IBC



Manufacturing site

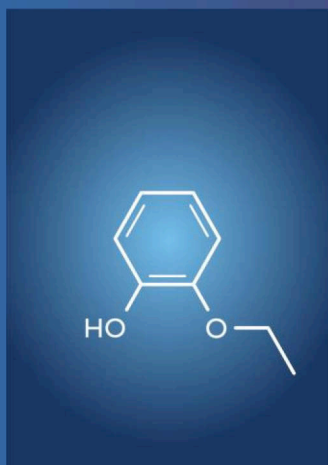
China

Performance Chemicals

GUETHOL CHEMICAL PRODUCT

GUETHOL OR 2-ETHOXYPHENOL, obtained by ethoxylation of catechol, is commonly used as intermediate in the synthesis of pharma and fragrances.

GUETHOL



More info about it

Guethol is high purity product, it is available in bulk or small container like IBC and drums.



Specifications

> 99.5%



Available packaging

BULK
IBC
DRUMS



Manufacturing site

India

R&D & LAB

SHELF LIFE CUSTOMIZED JUST FOR YOU

For more than 25 years, Camlin Fine Sciences has been providing **shelf life solutions to the food, pet food, animal feed and rendering industries.**

Our **Customer Application Laboratory** is here to help. CFS has the most combined antioxidant experience in the industry and can create the **tailor-made solution** you want with the high-quality stands you need.



R&D + LAB

OXIDATIVE BI-PRODUCTS

We perform multiple testing methods to quantify the level of both primary and secondary bi-products of oxidation, which include Peroxides, Aldehydes, Alkenals, TBA's and Free Fatty Acids.

ACCELERATED OR REAL TIME SHELF LIFE EVALUATIONS

We have storage chambers to accelerate the oxidation of food products where we can evaluate oxidative bi-products that are forming over time (ex: 12 weeks).

We have refrigerators and freezers that we can also store food products for on-going shelf life evaluations. We work together to come up with the best testing schedule to meet your needs.



LAB TESTING
CAPABILITIES

RELATIVE SHELF LIFE DETERMINATION

We utilize two different instruments to give us data to show how different antioxidants perform versus one another or to show how different treatment levels of the antioxidant performs in a dose response type scenario.

The **Oxidative Stability Index**, or **OSI**, is used for liquid substrates like fats and oils and the **OXITEST** is used for dry food substrates like crackers, cereal or petfood.

QUANTIFICATION OF ACTIVES

We utilize both the **HPLC** (High Performance Liquid Chromatography) and **GC** (Gas Chromatography) to quantify the levels of active compounds found in antioxidants.

This includes TBHQ, BHA, BHT, Propyl Gallate, Ascorbyl Palmitate, Citric Acid, Total Phenolic Diterpenes (rosemary actives, which also includes a breakdown of Carnosic Acid and Carnosol), Ascorbic Acid (Acerola actives), Catechins (Green Tea actives) and Mixed Tocopherols.



THE GOOD / GREEN

CHEMISTRY

SUSTAINABLE APPROACH



Good Chemistry

Results, Innovation, Trust



Research

Improvement, Development, Performance Test



Economy

Conscious Development



Energy

Energy independence, Reduction of consumption



Nature

Antioxidants for Food and Feed production



Being active in the research of sustainable products and productive solutions means engaging in an exploration that promotes eco-friendly practices and solutions. We consistently develop new approaches that contribute to creating innovative and customized solutions in harmony with the environment.

Being mindful of energy savings and recovery means committing to daily research and development of sustainable energy solutions, with the goal of making a positive contribution to the transition towards clean and renewable energy sources.

RESEARCH

ENERGY



GOOD CHEMISTRY

Being ambassadors of "good chemistry" means not only operating in compliance with current regulations but, above all, striving for an innovative production that is increasingly respectful of the environment and human and professional resources. This is our daily commitment.

ECONOMY

Taking a leading role in sustainable economics means adopting an approach that promotes environmental and social sustainability. Our economic activities are oriented towards investments and practices that aim to balance economic prosperity with respect for the environment and the well-being of society.

NATURE

Being custodians of the environment around us implies adopting practices that preserve and restore the balance of ecosystems. Our daily dedication is directed towards promoting initiatives that are as respectful as possible to natural habitats, with the goal of minimizing our impact on the planet.



SUSTAINABLE DEVELOPMENT GOALS



CFS Europe → sustainability

PURPOSE MAPPING RESULTS

This is our commitment to **sustainability**.
Here are our benchmark Sustainable Development Goals:

DISCOVER GREEN ACTIVITY
Sustainability

VERY HIGH priority

8 DECENT WORK AND ECONOMIC GROWTH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Increase number of people with skills for employment and entrepreneurship

Labour rights and safe and secure working environments for all workers

Sustainable management and efficient use of natural resources

Environmentally sound management of chemicals and waste (waste reduction, recycling and reuse)

HIGH priority

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Water-use efficiency

Renewable and efficient energy

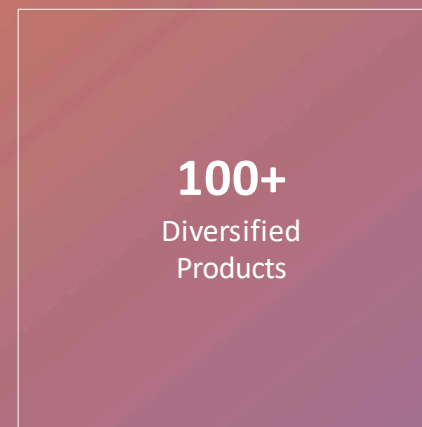
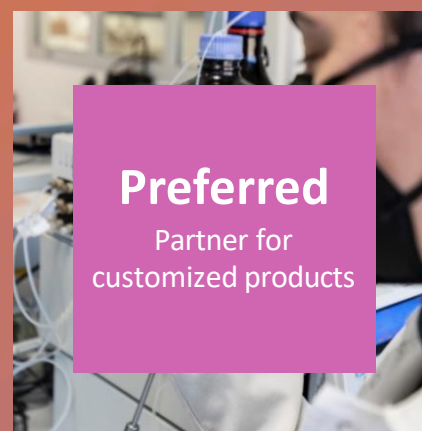
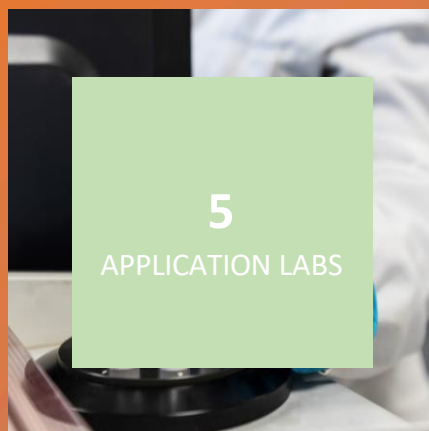
Adopt environmentally sound technologies and industrial processes

R&D and technological innovation to increase productivity

A GROWING UP GROUP

Camlin Fine Sciences Ltd. is a **vertically integrated company**, engaged in the research, development, manufacturing, commercializing, and marketing of specialty chemicals and blends.

A WORLDWIDE ORGANISATION



GLOBAL RESEARCH & DEVELOPMENT

APPLICATIONS LABS

- Mexico City
 - Des Moines, USA
 - Ravenna, Italy
 - Indaiatuba, Brazil
 - Mumbai, India
- › Develops customized blends for various applications
- › Provides technical assistance and development support to customers
- › Tests of defined performance parameters
- › Conducts stability studies for various products of shelf life

R&D + Labs

- Ravenna, Italy
 - Tarapur, India
- › Develops new products and does value additions to existing products
- › Develops customized products
- › Improves products and processes
- › Catalyst application & development
- › Focuses on developing derivatives of HQ and Catechol

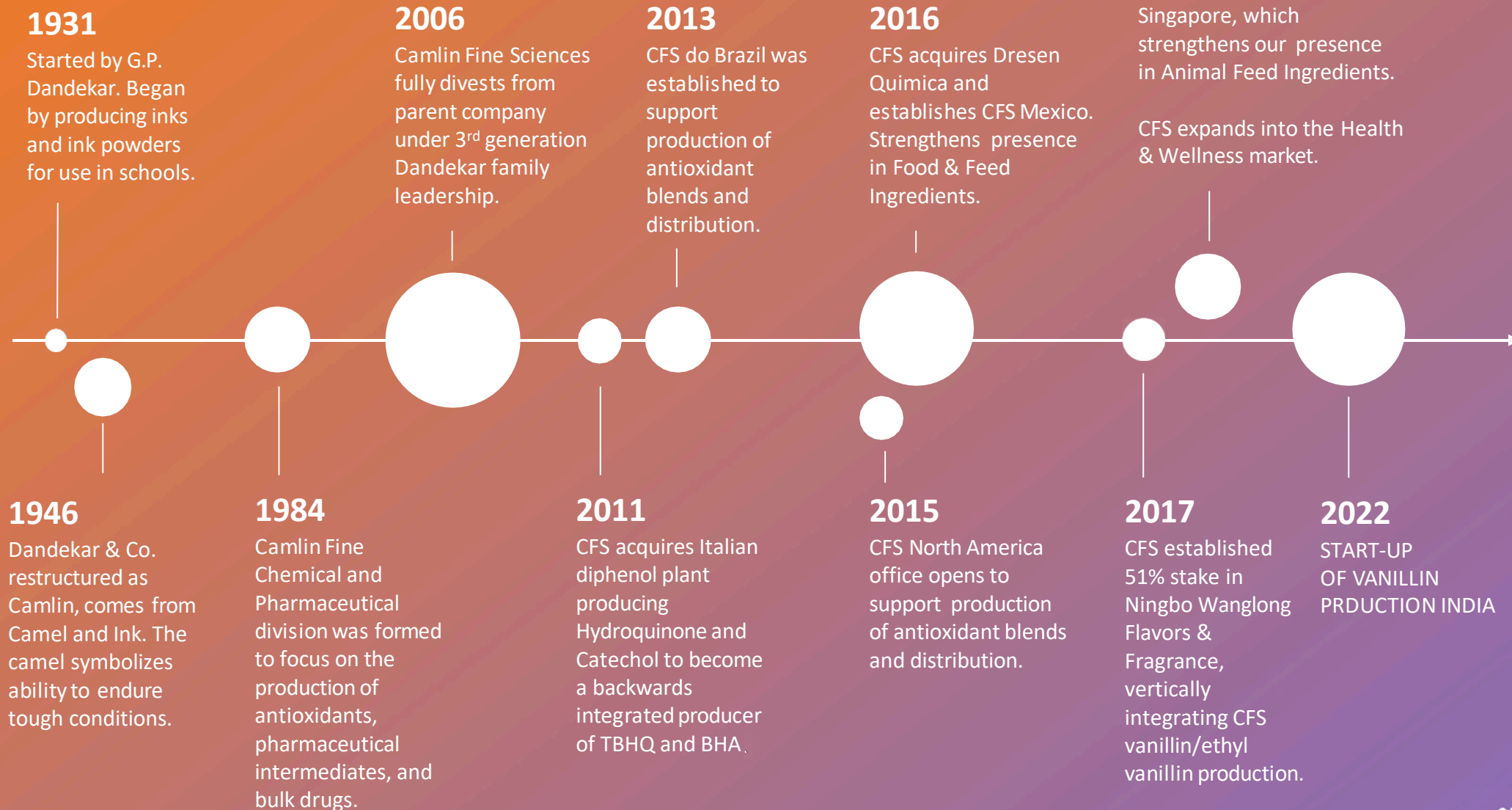
Pilot Plant

- Tarapur, India
- › It has the ability to run small batch sizes and stabilize the processes before commercial scale manufacturing
- › Improves processes



CFS Trough the Years

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Company overview





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