



SOURCE

ESSENTIAL OIL CROP REPORT

Purchasing Guide, Volume 2 | Summer 2019

SUMMER CROP CALENDER

LAVENDER & LAVANDIN

MARJORAM

PATCHOULI

CINNAMON

LEMONGRASS

CLOVE LEAF

GERANIUM

WELCOME TO THE JULY EDITION

In this issue, we cover the latest seasonal information on some of the top selling essential oils such as Lavender, Clove and Cinnamon.

For many of the essential oils, markets are experiencing a surplus of raw material inventory, resulting in widespread price declines. It is a buyers' market. Some industry experts believe the explosion of the retail aromatherapy market, which are now saturated with inventory, is a main cause.

In the 35 years I have worked in this industry, I have seen many ebbs and flows. As demand increases, producers begin to invest in crop expansion to meet that demand. Then as consumer preferences change so do product formulations and new product offerings. These changes create shifts in raw material demands.

Last year we saw historically high prices on a number of raw materials. We also continued to experience supply disruption due to the German BASF fire causing immense price volatility for essential oils like Litsea a source for Citral, a feedstock for production of many aroma chemicals. Additionally, we experienced a shift in raw material purchasing, which resulted in unsold essential oils from 2018 crop. Now we have an abundance of many essential oils triggering price drops.

We began to see this overall trend develop in 2017. We predict full market correction and stability to return in next 6 to 18 months; barring any force majeure incidents. Fortunately, consumer interest in aromatherapy has not completely deteriorated. In fact, it has created a demand for all-natural ingredients in their beauty, personal care, health and wellness products, and other fragrances and flavoring products.

At Lebermuth we partner with qualified producers around the world to supply us quality ingredients to help solve your ingredient challenges and continue to support your brand. We thank you for your continued support and trust.

Alan Brown
Chief Strategy Officer

Vol. 2 | Summer 2019

Crop Calender	3
Crop Chat - Lamiaceae Botanical.....	4
Crop Chat - Lauraceae Botanical	8
Crop Chat - Poaceae Botanical.....	12
Crop Chat - Myrtaceae Botanical	14
Crop Chat - Geraniaceae Botanical	16
The Lebermuth Story	20

Crop Calender

Crop calender for growing and harvesting
notes on the oils featured in this report

Photo by Mel Brown

ESSENTIAL OIL	ORIGIN	J	F	M	A	M	J	J	A	S	O	N	D
Cinnamon Bark <i>Cinnamomum zeylanicum</i> L.	Sri Lanka						x	x	x	x	x	x	x
Cinnamon Leaf <i>Cinnamomum zeylanicum</i>	Sri Lanka						x	x	x	x	x	x	x
Clove Leaf <i>Eugenia Caryophyllata</i>	Indonesia					x	x	x	x	x			
Egyptian Geranium <i>Pelargonium graveolens</i>	Egypt						x	x					
Lavender Bulgarian <i>Lavandula officinalis</i>	Bulgaria						x	x					
Lavandin Grosso <i>Lavandula hybrida</i>	France Spain USA						x	x					
Lemongrass <i>Cymbopogon flexuosus</i>	India						x	x	x	x	x	x	
Marjoram <i>Origanum majorana</i>	Egypt				x	x							
Patchouli <i>Pogostemon Cablin</i>	Indonesia					x	x	x	x	x			



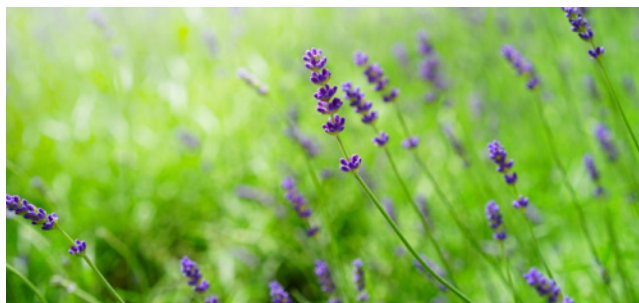
LAMIACEAE BOTANICAL

Known as the "mint family" of flower plants

Essential Oil	Blending Note	Odor Intensity	Odor Profile
Lavender	Top	6	Fresh sweet-fruity, slightly spicy balsamic undertone
Lavandin Grosso	Middle/Top	6	Fresh camphoraceous top note and a woody herbaceous undertone
Patchouli	Bottom	8	Sweet, rich, herbaceous earthy odor that improves with age
Marjoram	Bottom	5	Warm, woody, spicy camphoraceous odor

LAMIACEAE family is part of the Lamiales families, also known as the 'mint family' of aromatic plants. It is also considered the largest Lamiales family, with about 236 genera and more than 7,000 species within. Other well-known plants in this family are basil, mint, rosemary, sage, savory, marjoram, oregano, hyssop, thyme, lavender, and perilla. These beautiful plants are widely recognized for the aromatic qualities of their fragrant leaves and attractive flowers, generally allowing most of the plant, or shrub, to be distilled into an aromatic oil. The species, grown and cultivated nearly worldwide, is versatile and can be used in flavor, fragrance, medicinal and therapeutic applications.





LAVENDER

Origin: Bulgaria

- All Natural
- Kosher
- Food Grade

Lavender Bulgarian oil is a fresh-floral colorless-to-pale yellow liquid. It's high levels of linalool and linalyl acetate provide its identifiable and fragrant odor. Other constituents are limonene, geraniol, cineole, lavandulyl acetate and lavandulol, all which give it claims of therapeutic properties.

Bulgaria leads in Lavender production and had a good season. Due to the expansion of the aromatherapy market the demand, supply, and production have increased. We saw this in 2018, however it led to a surplus because the Aromatherpy market was not able to fulfill the additional supply produced to meet the demands. Between the 2018 supply, plus the 2019 crop, there continues to be a surplus of crop driving the prices down.

Price ▼

Supply ▲

ORGANIC LAVENDER

Origin: Bulgaria

- Organic
- Kosher
- Food Grade

After years of consistent growth, Bulgarian organic agriculture began to face challenges in 2017, mostly due to regulatory and certification issues. The demand for organic materials continues to rise, helping support the need for organic production.

Things are beginning to swing back, the 2019 crop production was stable, resulting in good

supply and stable prices.

Price ▼

Supply ▲



LAVANDIN GROSSO

Origin: France

- All Natural
- Kosher
- Food Grade

It was too cold during Spring and very dry from May to July, the plant did not produce enough oil. The distillation just finished mid August. It is said the oil production is between 20% to 50% less than the production from 2018 crop. Price is expected to go up.

Price ▲

Supply ▼

ORGANIC LAVANDIN GROSSO

Origin: Spain

- Organic
- Kosher
- Food Grade

Spain also had a very dry weather. Oil production was less than last year. The price is expected to go up.

Price ▲

Supply ▼

LAVANDIN GROSSO (AMERICAN)

Origin: United States

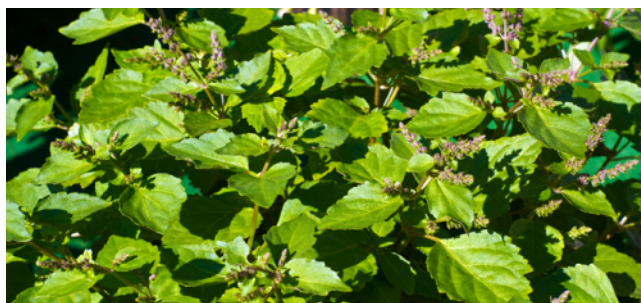
- All Natural
- Kosher
- Food Grade

Lebermuth currently has an exclusive relationship with the only American producer supplying high quality Lavandin Grosso. We are proud to be recognized as it's only supplier and to support local growers.

America has had normal crop, but the price has gone up due to farmer's increase in overhead.

Price ▲

Supply =



PATCHOULI

Origin: Indonesia

- All Natural
- Kosher
- Food Grade

Patchouli oil is extensively used in perfumery industry. There is no direct substitute, natural or synthetic, for patchouli which increases its value and demand in the perfumery market. Anything can literally disrupt this market and quickly shift its trajectory.

This year Patchouli demand has been strong throughout 1H 2019. Early 2019 prices were trending down from price levels but trended up in June ever so slightly and are remaining stable.

Indonesia produces 80% of the patchouli crop. Over the last few years the production has migrated from the island of Sumatra to the island of Sulawesi, due to soil exhaustion in the former location. Due to Tsunami's there was heavy flooding, affecting some transportation routes. If weather predictions of continued storms are accurate, supply will most certainly tighten and prices could move up. Let's hope weather

remains stable and natural disasters can be held at bay to keep prices stable for this material.

Price =

Supply ▲



MARJORAM

Origin: Egypt

- All Natural
- Kosher
- Food Grade

Marjoram is one of the most popular medicinal plants. The essential oil is extracted from the leaves and flowers, which provide an agreeable spicy smell and taste. It is a popular flavor for Mediterranean cuisine and for aromatherapy use. The major components of Marjoram oil are α -Pinene, β -Pinene, limonene, 1,8 cineole, linalool, terpinene-4-ol, α -Terpinene, Linalyl acetate and eugenol.

Normal crop in Egypt this year and prices will be stable if supply remains unchanged.

Price =

Supply =

ORGANIC MARJORAM

Origin: Egypt

- Organic
- Kosher
- Food Grade

Normal crop in Egypt this year and prices will be stable if supply remains unchanged.

Price =

Supply =



LAURACEAE BOTANICAL

Earth's Musk

Essential Oil	Blending Note	Odor Intensity	Odor Profile
Cinnamon Bark	Base/Middle	5	Rich, warm, spicy, woody, dry, powdery
Cinnamon Leaf	Middle	5	Fresh, woody, warm, earthy, green, faint smoky, ambergris-like

LAURACEAE, the most economical of the Laurales families, grows in tropical and warm environments and cultivates best in wet, or moist climates. The species grow as shrubs, trees, or woody vines and offer various advantages across its different plants.

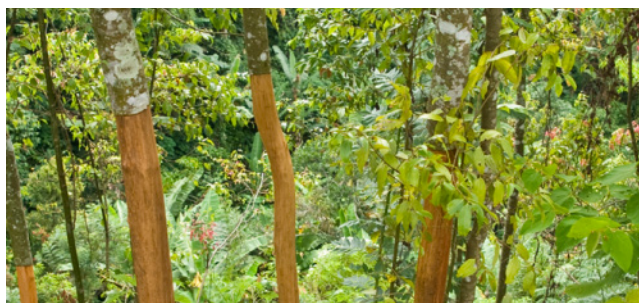
Well-known species in the family are avocado trees and bay laurel, both which provide a wealth of health and flavoring benefits. Another member is the camphor tree which can release a strong aromatic woody scent for decades after its cut. Its distilled essential oils release a similar woody, musky, camphorous fragrance making it popular in formulations.

Cinnamon is also in the Lauraceae family and is popular for flavor and medical purposes. Cinnamon is harvested during monsoon season because it is easier to remove the utilized components from the trees when they are soft enough to peel. The oil can be distilled from several parts of the tree such as bark and leaves. Although they are both produced from the same tree, they are very different in aroma and taste. The bark's main constituent is cinnamaldehyde which is powerful, spicy, hot, yet sweet; much like the small-hot cinnamon candies we knew as kids. While the leaves' main constituent is Eugenol, which has a clove-like essence and flavor.

FUN FACT: *It is tradition for families in Sri Lanka to plant a cinnamon tree at the birth of a child. Once their child is grown and begins life's journey, the tree is cut down and sold to a broker to provide financial support on that journey i.e. school, marriage, children.*



Cinnamon Production in Sri Lanka
Photo by Mel Brown



CINNAMON BARK

Origin: Sri Lanka

- All Natural
- Kosher
- Food Grade

Sri Lanka is the largest exporter of 'True Cinnamon' in the world, supplying about 25% of North American cinnamon. The usage for spices and essential oils have grown as the natural conscious consumer demand grows. Sri Lanka is continuing to be ahead of the curve to expand supply to support the growth.

The year started off dry, however the rain arrived in time for harvest and cinnamon peeling has begun. The crop availability looks to be the same, however prices are expected to drop from off season reserves with the addition of the current season supply.

Price ▼

Supply =

ORGANIC CINNAMON BARK

Origin: Sri Lanka

- Organic
- Kosher
- Food Grade

The price has reduced slightly, and the crop is expected to remain the same as 2018.

Price ▼

Supply =



CINNAMON LEAF

Origin: Sri Lanka

- All Natural
- Kosher
- Food Grade

Cinnamon leaf is harvested from the same trees as the bark and had similar weather conditions. Prices have also softened for the leaf oil due to lower demand.

Price ▼

Supply =

ORGANIC CINNAMON LEAF

Origin: Sri Lanka

- Organic
- Kosher
- Food Grade

Although organic demand grows, it had declined for cinnamon leaf resulting in price reduction. Rain relieved the drought and the crop is expected to be good and provide the same amount as 2018.

Price ▼

Supply =



Cinnamon Production in Sri Lanka
Photo by Mel Brown

POACEAE BOTANICAL

World's single most important source of food

Essential Oil	Blending Note	Odor Intensity	Odor Profile
Lemongrass	Top	6	Fresh, grassy-lemony aroma, with earthy undertones

POACEAE is known as the grass of flowering plants, making it the easiest to grow around the world in multiple types of climates. Grass can produce by cross pollination, self-fertilization and asexual reproduction, creating a fast, consistent, and easy reproduction eco-system.

Poaceae could be considered the world's building blocks. Not only does it provide important food sources such as maize, wheat, rice, barley, oat, rye and millet. It also sources building materials like bamboo, thatch, straw and even fuel (ethanol).

Lemongrass, a perennial grass, also is part of the Poaceae family. This plant grows in tropical and sub-tropical climates and also is a large contributor to flavor and fragrance industries. The oil is distilled from leaves and flowering tops of Lemongrass and has a strong lemon-like odor, due to a high percentage (over 70%) of citral in the oil.

The characteristic smell of oil makes its use in scenting of soaps, detergents, perfumes, candles, aromatherapy, sprays, insect repellent preparations and for the extraction of an aroma chemical, citral. Lemongrass oil also is a diuretic, tonic, and has anti-bacterial, anti-fungal properties making it great for pharmaceutical and therapeutic purposes. It also is great for food & beverage flavoring with a high percentage of terpenes (limonene and myrcene).



LEMONGRASS

Origin: India

- All Natural
- Kosher
- Food Grade

Weather has been favorable; crop and price will remain the same as last year.

Price =

Supply =

ORGANIC LEMONGRASS

Origin: India

- Organic
- Kosher
- Food Grade

Weather has been favorable; crop and price will remain the same as last year.

Price =

Supply =



MYRTACEAE ***BOTANICAL***

Spice of Life

Essential Oil	Blending Note	Odor Intensity	Odor Profile
Clove Leaf	Base	6	Peppery, spicy, sweet, aromatic, woody, balsamic, minty, powdery

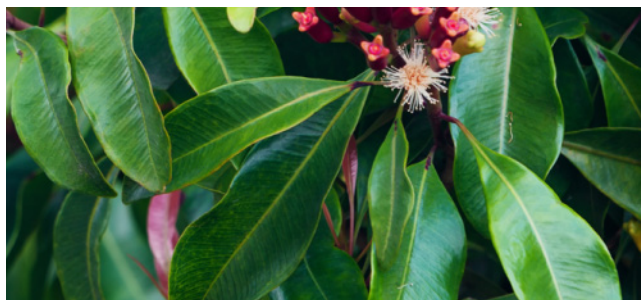
MYRTACEAE are trees, shrubs, flesh fruit and/or leathery evergreen leaves with oil glands. They grow in tropical climates. Their flower parts in multiples of four or five and produce a woody aroma. Some of the most notable plants in this family are allspice, eucalyptus, clove, guava, bay rum and acca. Many of the plants have been known for their therapeutic & antibacterial properties.

and dry resulting in a significant increase in clove leaf oil production.

The global demand of Eugenol (main constituent in clove), along with other clove derivatives, has decreased. The prices are expected to go down due to the low demand.

Price ▼

Supply ▲



CLOVE LEAF

Origin: Indonesia

- All Natural
- Kosher
- Food Grade

The uncertainty of tariffs between China and the US has affected many economies, including Indonesia. As a result, many buyers have begun to adopt cautious purchasing strategies to mitigate unexpected risks.

FUN FACT: *The first Madagascar settlers were in fact Indonesian and brought many of the rituals, culture and crop to the country. Today, Indonesia and Madagascar remain closely tied in many ways, including farming. Right now, Indonesia is producing more clove leaf oil than Madagascar.*

There are several variables that affect the price of clove such as climate, weather, the tobacco industry, demand, politics and exchange rates - within both countries. After two years of extended wet seasons, this year has been long

GERAMIACEAE ***BOTANICAL***

A blossom for the senses

Essential Oil**Blending Note****Odor Intensity****Odor Profile**

Geranium

Middle

5

Green, rosy-sweet, minty aroma

GERANIUMS are known for their fragrant order. They can flourish in both temperate and warm climates. This family has 7 genera, however it's known best for two main functions 1) as an aromatic essential oil that is commonly used in perfumes, aromatherapy, soaps, and personal care 2) as an ornamental house plant due to its attractive appearance.

**GERANIUM**

Origin: Egypt

- All Natural
- Kosher
- Food Grade

The essential oil of geranium has a powerful, floral aroma. It has traditionally been used to reduce stress and improve skin, making it a favored ingredient. Geranium is also fractionated to produce natural aromatic chemicals like linalool, geranyl formate, citronellol, geraniol and rhodinol.

While China continues to supply a portion of the world's geranium oil, Egypt is the largest supplier, with the most precious geranium coming from Reunion Island.

A slight decline in demand, partnered with farm expansions in 2019, is keeping prices consistent at the moment. The weather has been favorable, providing a steady crop year after year. Distillation is under way and will reveal any changes to price, but not expected.

Price =

Supply =

ORGANIC GERANIUM

Origin: Egypt

- Organic
- Kosher
- Food Grade

Demand has softened, however weather has been favorable, providing consistent crop. Distillation under way and will reveal any major changes to prices.

Price =

Supply =





Specifications at the Click of a Button

Our full array of quality documentation is available on our website

On average, these complex aromatic liquids known as essential oils, contain one hundred components. Many are in such small proportions it is often hard to isolate or identify them. To properly distill an oil, it's necessary to know the ratio of constituents.

We were one of the first to adopt testing using chiral GC, which enables a more comprehensive and further break down of an oil's individual components. Using this analysis technology, we're able to verify the authenticity and quality of our oils as part of our quality control/quality assurance procedures.

Our Quality Control department also tests for adulteration, checking refractive index, specific gravity, color, odor, and other markers, utilizing gas chromatography and mass spectrometry.

Our goal is to ensure consistency, giving you the quality, you expect from Lebermuth. When we say we source the highest quality oils, we have the analysis to prove it.

If you would like to access our quality documentation, please visit our regulatory portal at <https://portal.lebermuth.com> or call our Customer Service team for assistance.

Here is an example of the documentation we are able to provide.



50-6225-20 PEPPERMINT ORGANIC OIL

Essential Oils | Fragrances | Flavors

50-6225-20, PEPPERMINT ORGANIC OIL

Submit

Download

Email address

Send to Email Address

Organic: Y [Organic Certificate](#)

Kosher: Y [Kosher Certificate](#)

Food Grade: Y

Natural: Y

GRAS: Y

Select all

- Added Color Statement.pdf
- Animal Testing Statement.pdf
- BSE TSE Statement.pdf
- Food Allergen Statement.pdf
- Food Grade Statement.pdf
- Formaldehyde Statement.pdf
- Gluten Statement.pdf
- GMO Statement.pdf
- GRAS Statement.pdf
- Halal Statement.pdf
- Heavy Metals Statement.pdf
- Irradiation Statement.pdf
- Natural Statement.pdf
- Nutritional Statement.pdf
- Organic Suitability Statement.pdf
- Origin Statement.pdf
- Paraben Statement.pdf
- Pesticide Statement.pdf
- Phthalates Statement.pdf
- Prop 65.pdf
- SLS Statement.pdf
- Technical Data Specification.pdf
- Vegan Statement.pdf
- SDS US_EN.pdf
- SDS CA_EN.pdf
- SDS CA_FR-CA.pdf

Lebermuth's online regulatory portal



PEPPERMINT ORGANIC OIL
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 08/20/2015 Revision date: 08/20/2015 Version: 1.2

SECTION 1: Identification

1.1. Identification

Product form : Substance
Substance name : PEPPERMINT ORGANIC OIL
CAS-No. : 8005-90-4
Product code : 50-6225-20

1.2. Recommended use and restrictions on use
No additional information available

1.3. Supplier
The Lebermuth Company
4004 Technology Drive
South Bend, IN 46621 - United States
T 574-259-7000 - F 574-259-7450
info@lebermuth.com www.lebermuth.com

1.4. Emergency telephone number
Emergency number : Chemtec : USA: 800-424-0300 International: 703-627-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 4	Combustible liquid
Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
Aspiration hazard Category 1	May be fatal if swallowed and enters airways

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US)

Signal word (GHS-US) : Danger

Hazard statements (GHS-US)

Precautionary statements (GHS-US)

5/11/2015 EN (English US) Page 1

Example of SDS regulatory document

THE STORY



The world of essential oils is filled with aromatic wonders

Our story began in 1908

American growers of mint oils where our first partnerships. In the mid-70's, our family-run business expanded into other oils and by the 90's our global relationships were far reaching. Today, we are leaders in Essential Oil, Fragrance, and Flavor industries, and still owned by the Brown family. We proudly carry the family legacy into the future as we prepare to pass the torch to the fifth generation.

Our Oils

It takes a huge amount of work to produce an essential oil.

Sourced from flowers, fruits, leaves, trees, bark, heartwood and grasses, each requires specialist knowledge of growing conditions, harvesting times, picking methods, handling of the material and the intricacies of processing to extract the precious essential oils.



The price of each oil reflects these complexities, along with the nuances of changing weather patterns each season, fluctuations of currency, production volumes and ultimately demand. We source the finest essential oils from over 30 countries, from top rated growers and premium locations.

With Lebermuth's grower direct sourcing relationships, our customers enjoy better quality ingredients via a more direct supply chain, knowing they're helping provide ecological and social sustainability for our farmers.



Direct-to-Grower Relationships

Many of our grower relationships are generations-long and generations-strong. We travel the world throughout the year to survey the crops and predict market fluctuations. Our hands-on involvement with our growers ensures quality products and a more direct supply chain.

Processing

With our five distillation units in Bremen, Indiana, we feature distillation capabilities, to isolate, place, or reduce constituents to increase oil usability, reliability, or characteristics.



Putting Nature Back in Natural

Natural isn't new. Not for Lebermuth. We've been natural since we began. After all, essential oils come from natural plants, in truly giving your consumers what they're looking for in your product: clean label, recognizable ingredients, and natural/organic sources.

True Partnerships

We know consumers expect distinctiveness and quality, and we collaborate with your development teams, so your product meets those expectations. We have a knowledgeable applications team that test your custom creations in application to ensure it performs as desired.



Invitation

We invite you to contact us today to discuss your oil requirements. Our team can provide you with the absolute latest on stock availability, harvest reports, exchange rate impacts, and guide you in selecting the ideal oils for your project and your budget. We look forward to assisting you soon.





Disclaimer

Essential oils are commodity items and data within this report has been gathered and analyzed from numerous sources. Whilst all care has been taken, market information contained here can change and may have already changed at the time of your reading. For most up to date information, we recommend contacting our customer service team.

References:

- Lebermuth field trips and ongoing communications with growers, producers and processors.
- Statistics Analysis Essential Oil Global Market Outlook report (2016-2025).

Contact Information

Lebermuth Corporate Headquarters
4004 Technology Drive
South Bend, Indiana 46628
United States
800.648.1123
info@lebermuth.com

All information provided is for reference purposes only and is not intended to substitute the advice given by a pharmacist, physician, or any other licensed health-care professional. Lebermuth's products have not been evaluated by the FDA and are not intended to diagnose, treat, cure, or prevent any health condition or disease. The information provided is for personal information and interest only, and is not intended to offer professional medical advice or treatment for any condition. We recommend that you consult your health care provider if you have any health concerns.

We neither accept nor have liability for the misuse of essential oils or other products or for any reliance on the information provided by us on our website or elsewhere. Essential oils are highly concentrated and potent and it is important to always check the specific safety data provided. Treat all essential oils as flammable liquids. Actual product packaging and materials may contain different information than that which is shown in this document or elsewhere.

Keep essential oils in a secure place away from infants, children, elderly persons, pregnant women, and pets. Never take essential oils orally and avoid all contact with the mouth area and eyes. Never use an essential oil undiluted unless instructed to do so by your health care provider or a certified aromatherapist.



Since 1908, Lebermuth has been a leader in the Essential Oil, Fragrance, and Flavor industries.

Over a century of sensory experience.

The Lebermuth Company

South Bend, Indiana USA

800.648.1123

lebermuth.com