



LIBERTY NATURAL PRODUCTS, INC.

*The Source for the Finest
Pure and Natural Botanical Oils and Extracts*

libertynatural.com

Section 1. Product and Company Identification

Product Name:	Plai
Product Code:	2530
Description:	Essential Oil of Plai
Product Use:	Industrial
Manufacturer:	Liberty Natural Products, 20949 S Harris Rd, Oregon City, OR 97045 (800) 289-8427
Emergency Phone:	USA, Canada, Mexico: 1-800-535-5053 International: 1-352-323-3500

Section 2. Hazards Identification

Category:	H226 Flammable liquid and vapor.
Signal Word:	Warning
Ingestion:	H305 May be harmful if swallowed and enters airways.
Health Risks:	N/A
Eye Contact:	H319 Causes serious eye irritation.
Skin Contact:	H315 Causes skin irritation. H317 May cause an allergic skin reaction.
Environmental:	H401 Toxic to aquatic life.

Pictograms:



PRECAUTIONARY STATEMENT:

- P210 Keep away from heat, sparks, open flames or hot surfaces. – No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical, ventilating, lighting, communication, equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust, fume, gas, mist, vapors, spray.
- P264 Wash parts in contact thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing, eye protection, face protection.

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Section 3. Composition and Information on Ingredients

Chemical Name:	<i>Zingiber cassumunar</i>
Physical State:	Liquid.
CAS #:	84696-15-1
Impurities:	None.
Trade Secret Claim:	None.

Section 4. First Aid Measures

Eyes:	Irrigate with clean water severally at least 15 minutes holding the eyelids open then obtain medical advice.
Skin Contact:	Remove contaminated clothes immediately. Wash the skin with large quantities of water or water and soap.
Inhalation:	Move from exposure and keep the patient warm and at rest. Refer the patient to doctor if evidence of serious effect persists.
Ingestion in excess:	Rinse mouth with water. Ingest at least one pint of milk or water and obtain medical advice immediately. Do not induce vomiting.
Emergency Care:	Contact local emergency provider. For non-emergency, contact primary care provider.
PPE:	Gloves, lab coat or uniform, safety glasses, eyewash, safety shower.

Section 5. Fire-Fighting Measures

Flammability:	Flammable.
Extinguishing Media:	SUITABLE: CO ₂ , dry chemical or alcohol resistant foam NON SUITABLE: Water.
Special Fire-Fighting Procedure:	Do not use direct water jet. However, water still can be used to cool the containers which exposed to fire. Do not breathe in the smoke.
Unusual Fire and Explosion Hazards:	Vapor may travel to source of ignition and flash back. Vapor may settle low or in confined spaces. May produce a floating fire hazard. Static ignition hazard can result from handling and use. Essential and vegetable oils have the potential to self-heat and contribute to spontaneous combustion when on fabrics. Caution should be exercised in the storage and launder of fabrics exposed to oils.
PPE and Precautions for Firefighters:	Static charges generated by emptying package in or near flammable vapor may cause flash fire. Use water spray to cool unopened containers.

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Section 6. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain/aquatic environment.
Containment:	Absorb with clay, sand, or other non-combustible material. Prevent entry into waterways, sewers, and confined areas.
Clean Up:	Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Remove absorbent material to approved disposal container. Clean preferably with detergent. Do not use any solvent.

Section 7. Handling and Storage

Handling Precautions:	Maintain adequate air circulation in working area. The vapors can spread and form explosive mixtures with air. Smoking in handling area is prohibited. Avoid vapor concentration higher than the occupational exposure limits.
Storage Precautions:	Keep in cool preferably at about 20-25 °C, dry place and protected from light. Keep containers tightly sealed. Keep away from all ignition sources. In original container, 24 months quality should be checked visually and olfactory before each use and fully checked after the shelf life period.
Other:	See Section 8

Section 8. Exposure Controls/Personal Protection

Engineering Controls:	Exhaust ventilation or other engineering controls to keep vapor concentration below their respective threshold limit value. Ensure eyewash stations and safety showers are proximal to the work station. Use explosion-proof ventilation equipment to stay below exposure limits.
Respiratory Protection:	In a well-ventilated area, respiration protection is not required. In confined, poorly ventilated areas, wearing a suitable protective mask if required.
Hand Protection:	Use of chemical resistant gloves is recommended.
Eye Protection:	In general, using safety goggles is recommended.
Skin and Body Protection:	Protective creams may be used for exposed skin.
Ingestion:	Do not eat, drink and smoke while using.
Industrial Hygiene:	When using, do not smoke. Always observe good personal hygiene measures, such as washing after handling the

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material and before eating, drinking, and/or smoking.
Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

OSHA Permissible Exposure Limits (PELs):	N/A
ACGIH Threshold Limit Values:	N/A

Section 9. Physical and Chemical Properties

Appearance:	Colorless to yellow clear liquid
Upper/Lower Flammability:	Will ignite if moderately heated
Odor:	Characteristic herbaceous odor
Vapor Pressure:	N/A
Odor Threshold:	N/A
Vapor Density:	N/A
pH:	N/A
Relative Density:	N/A
Melting Point:	N/A
Freezing Point:	N/A
Solubility:	Insoluble
Initial Boiling Point and Boiling Range:	N/A
Flash Point:	116.6°F / 47°C
Evaporation Rate:	N/A
Flammability Category:	N/A
Partition Coefficient:	N/A
Auto-ignition Temperature:	N/A
Decomposition Temperature:	N/A
Viscosity:	N/A
Specific Gravity:	0.8800 – 0.9250

Section 10. Stability and Reactivity

Stability:	Stable under normal circumstances.
Avoid:	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point.
Incompatibility:	Strong oxidizing agents.
Hazardous Byproducts:	None in normal conditions. May release hazardous decomposition products when exposed to high temperature.
Other:	No hazardous decomposition products if stored and handled as indicated.

Section 11. Toxicological Information

Toxicological and Health Effects:	Nontoxic at established levels.
Likely Routes of Exposure:	Eyes, nose, mouth, skin.
Signs and Symptoms of Exposure:	Eye and skin irritation or damage.
LD50 (median lethal dose):	N/A

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Listed NTP Carcinogen: N/A
INGESTION: Can be noxious

Section 12. Ecological Information

TOXICITY: Harmful to aquatic life with long lasting effects.

PERSISTENCE / DEGRADABILITY: No data is available on the degradability of this product.

BIOACCUMULATION POTENTIAL: No information available.

RESULTS OF PBT AND vPvB ASSESSMENT: No information available.

MOBILITY IN SOIL: No information available.

OTHER ADVERSE EFFECTS: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13. Disposal Considerations

Disposal Containers: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Waste Disposal: Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

Special Considerations: Dispose of spill containment material in accordance with Federal, State, and local laws.

Section 14. Transport Information

UN Number: UN1197

UN Shipping Name: Extracts, liquid for flavour or aroma

Transport Hazard Class: 3

Packing Group Number: III

Stowage and Handling: N/A

Section 15. Regulatory Information

Product Regulations: N/A

Section 16. Other Information

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This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers.

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