



MATERIAL SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

PRODUCT NAME :	Clove Bud	COMPANY :	ZAYAT AROMA INC.
BOTANICAL NAME :	Eugenia caryophyllata	ADDRESS :	1339 SHEFFORD, BROMONT (QC) J2L 1C9
SYNONYM(S) :	Syzygium aromaticum	TELEPHONE :	1.855.534.1671
		FAX :	1.855.553.6010
		WEB :	WWW.ZAYATAROMA.COM
		E-MAIL :	INFO@ZAYATAROMA.COM
INCI NAME :	Clove bud essential oil		
CAS TSCA :	8000-34-8	HS CODE :	3301.29
CAS EINECS :	84691-50-2	EINECS :	284-638-7
FEMA :	2323	COE :	188n
COUNTRY OF ORIGIN :	India	FDA CODE :	184.1257

24 HOUR EMERGENCY TELEPHONE NUMBER : 1-613.996.6666

SECTION 2 : COMPOSITION AND INGREDIENTS INFORMATION

CONTENTS : Eugenol 85.56%, Caryophyllene 11.18%

SECTION 3 : HAZARDS IDENTIFICATION

HAZARDOUS INGREDIENTS : Not-regulated
MEDICAL INFORMATION : N/A

SECTION 4 : FIRST AID MEASURES

EYE CONTACT : Contact with eyes can produce burning sensation. Irrigate with water immediately, continue flushing eyes with water for 15 minutes. Seek medical attention if irritation persists.
INHALATION : Remove to fresh air. Give oxygen if breathing is labored and seek medical advice. Avoid casual breathing. Signs of over-exposure are dizziness and nausea.
INGESTION : Rinse mouth; dilute with milk or water and consult a physician immediately. Do not induce vomiting. Never give anything by mouth it victim is unconscious, is rapidly losing consciousness or is convulsing.
SKIN CONTACT : Skin contact can produce irritation or itching of the skin. Remove contaminated clothing. Wash with soap and plenty of water. Seek medical attention if irritation persists.

SECTION 5 : FIRE FIGHTING MEASURES

FLASH POINT : >100 °C
EXTINGUISHING MEDIA : Carbon Dioxide, dry chemical or foam. Closed containers may build up pressure at elevated temperature.
SPECIAL PROCEDURES : Determine the need to evacuate or isolate the area according to your local emergency plan.
UNUSUAL FIREFIGHTING HAZARDS : None identified
PROTECTIVE EQUIPMENT : Self-contained breathing apparatus and protective clothing should be worn when fighting fires involving essential oils or chemicals.
COMBUSTION PRODUCT : Carbon Monoxide, Carbon Dioxide

SECTION 6 : ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS : Use of self-contained breathing apparatus is recommended for any major chemical spill. Refer also to section 8.
SAFETY PRECAUTIONS : Eliminate all ignition sources. Ventilate area. Determine the need to evacuate or isolate the area according to your local emergency plan.
ENVIRONMENTAL PRECAUTIONS : Keep away from drains, surface and ground water. Report spills to appropriate Authorities if required.
METHODS FOR CLEANING UP : Contain and collect with inert absorbent material and place in suitable container for disposal. Comply with all federal, state, and local regulation. Wipe small spills with cloth. Clean with hot water and detergent.

SECTION 7 : HANDLING AND STORAGE

HANDLING : Avoid inhalation and contact with skin and eyes. Good personal hygiene practices should be used. Wash after any contact, before breaks and meals, and at the end of the work period. Contaminated clothing and shoes should be cleaned before re-use.
STORAGE : Containers should be kept closed in order to minimize contamination. Store in a cool, dry, well ventilated place protected from light. Keep away from extreme heat and from freezing conditions and away from all sources of ignition. Make sure the material does not come into contact with substances listed as: "Materials to Avoid".

SECTION 8 : EXPOSURE CONTROLS AND PERSONAL PROTECTION

EYES PROTECTION : The use of safety glasses is recommended. If a material is to be handled in a manner where splashing may occur, the use of splash goggles or face shield is recommended.
RESPIRATORY PROTECTION : In well-ventilated areas, respiratory protection is not normally required. In confined, poorly ventilated areas the use of "NIOSH" approved respiratory protection normally required (use only if trained in proper use and with acceptable oxygen level).
PROTECTIVE GLOVES : Using chemical resistant gloves is recommended.
PROTECTIVE CLOTHING : Using chemical resistant clothing is recommended.
PROTECTIVE EQUIPMENT : An eyewash fountain and / or safety showers should be available in the work area. Acceptable industrial hygiene practices should be maintained.
NOTE : These precautions are for room temperature handling. Use at elevated temperature or aerosol / spray applications may require additional precautions.

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NB: This is page 1/2, containing MSDS information Sections 1 to 8. See page 2/2 for MSDS information Sections 9 to 17.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :	Clear pale yellow to yellowish brown mobile liquid
ODOR :	Characteristic spicy odor of cloves
REFRACTIVE INDEX :	1.525 - 1.540 @ 20°C
SOLUBILITY :	Soluble in alcohol and oils. Insoluble in water.
SPECIFIC GRAVITY :	1.030 - 1.064 @ 20°C
FLASH POINT :	>100 °C
MELTING POINT :	N/A
BOILING POINT :	N/A
VAPOR PRESSURE :	N/A
VAPOR DENSITY (AIR = 1) :	1.042 @ 1.063 g/mL
OPTICAL ROTATION :	0° @ -3°

SECTION 10 : STABILITY AND REACTIVITY

STABILITY :	Chemically stable. This material presents no significant reactivity hazard.
CONDITIONS TO AVOID :	Avoid sparks. Flame and excessive heat.
MATERIALS TO AVOID :	Strong oxidizing agents.
FLAMMABILITY :	Combustible liquid.
HAZARDOUS POLYMERIZATION :	Will not occur.
HAZARDOUS COMBUSTION :	When heated to decomposition produces acid fumes and carbon monoxide smoke.

SECTION 11 : TOXICOLOGICAL INFORMATION

INHALATION :	Inhalation of high concentration of vapor may result in irritation on eyes.
SKIN CONTACT :	Repeated or prolonged contact can cause redness, irritation and scaling of skin (Dermatitis).
EYE CONTACT :	May irritate eyes.
INGESTION :	Low order toxicity arising irritation of the stomach and intestines, resulting in nausea and vomiting.
MEDICAL CONDITIONS	May aggravate dermatitis, psoriasis and other skin conditions
AGGRAVATED BY EXPOSURE :	
REPRODUCTIVE TOXICITY :	No adverse effects on reproduction are known.
ACUTE TOXICITY VALUES :	No data is currently available.

SECTION 12 : ECOLOGICAL INFORMATION

GENERAL :	Very toxic to aquatic organism; may cause long-term adverse effects in the aquatic environment.
PRODUCTS OF BIODEGRADATION :	Avoid any pollution of ground, surface or underground water.
TOXICITY OF PRODUCTS OF BIODEGRADATION :	

SECTION 13 : DISPOSAL CONSIDERATION

WASTE DISPOSAL :	Incineration or sanitary landfill in accordance with local, provincial and federal regulations. Check with disposal expert to insure compliance.
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SECTION 14 : TRANSPORT INFORMATION

UN No. :	Not-regulated	US DOT SHIPPING DESCRIPTION :	Not-regulated
PACKAGING GROUP :	Not-regulated	IATA SHIPPING (AIR) :	Not-regulated
		IMDG SHIPPING DESCRIPTION :	Not-regulated

SECTION 15 : OTHER REGULATORY INFORMATION

WHMIS (CANADA) :	Group III, Class 3
HMIS (USA) :	Health Hazard - N/A; Fire Hazard - N/A; Reactivity - N/A
SARA 302/ SARA 313 :	None
CALIFORNIA PROPOSITION 65 :	This product does not contain chemical listed per the Safe Drinking Water and Enforcement Act of 1986.
EUROPEAN UNION LABELING :	R10 - Flammable. Xn R22 - Harmful if swallowed. Xi R38 - Irritation to skin S36/37/38 - Wear suitable protective clothing, gloves and eye/face protection.

SECTION 16 : OTHER INFORMATION

When utilized by professionals following the conventional good manufacturing practices, the aromatic materials are not severely dangerous. However, the preceding precautions and the following general operation rules must be respected. Keep the product away from any food or drink. It is an industrial product and must not be ingested as such Eating, drinking and smoking should not be permitted in handling and packaging areas. Cases of auto-flammability of several fragrance materials are reported. Consequently, the materials used to mop up the product (sponges, absorbent papers, sawdust, etc...) must be rapidly eliminated. The refuse-bins in the manufacturing areas must be cleared out. Transfer to a flammable waste container and incinerate at approved site. The product must not be heated with, or exposed to, open flames or other sources of ignition. Do not expose the product to unprotected electrical equipment. Never overheat the product. Do not breathe hot vapours. In any case of potential poisoning, get medical advice.

SECTION 17 : DISCLAIMER

The information above is given in good faith and is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ZAYAT AROMA INC. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ZAYAT AROMA INC. has been advised of the possibility of such damages. This data is not to be constructed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. This data relates only to the specific material designated and not to be used in combination with any other material. Many regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize themselves with all applicable regulations.

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