Safe Data Sheet

Section I
Product Identification

Product Name: Nutmeg Oil Extra  
Method of Cultivation: Conventional
Botanical Name: Myristica fragrans  
Country of Origin: Indonesia
H-No.: Not available.  
CAS No.: 8008-45-5  
Status: Natural
CoE No.: 296  
FEMA: 2793  
Additives: None
FDA: 182.20  
IFRA: Not restricted
RIFM: Not available.  
EINECS: 282-013-3
Chemical Name: Myristica fragrans Houtt.

Botanical Origin: Obtained by steam distillation from crushed nutmeg (Myristica fragrans Houtt.).
Relevant Identified Uses: This product is intended for use as an ingredient for perfumery or similar.

Section II
Hazard(s) Identification

Classification
According to Directive 67/548/CEE or (1999/45/CE):

T N  
R10, R38, R43, R45, R51/53, R65, R68

Classification
According to Regulation (EC 1272/2008):

Human health: Flam. Liq. 3 – H226 ; Asp. Tox. 1 – H304 ; Skin Irrit. 2 – H315 ; Skin Sens. 1 – H317 ; Muta. 2 – H341 ; Carc. 1B – H350 ;
Environment: Aquatic Chronic 2 – H411
Risk Phrases: 
R10: Flammable.
R38: Irritating to skin.
R43: May cause sensitization by skin contact.
R45: May cause cancer.
R51/53: Toxic to aquatic organisms, & may cause long term adverse effects in the aquatic environment.
R65: Harmful: May cause lung damage if swallowed.
R68: Possible risk of irreversible effects.

Hazard Statements: 
H226: Flammable liquid & vapour.
H304: May be fatal if swallowed & enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Prevention: 
P210: Keep away from heat, hot surfaces, sparks, open flames & other ignition sources. – No smoking!
P273: Avoid release into the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read & understood.
P233: Keep container tightly closed.
P240: Ground/Bond container & receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash hands thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the work place.

Intervention: 
P301+P310: IF SWALLOWED: Immediately call a Poison Center or Doctor/Physician.
P302+P352: IF ON SKIN: Wash with plenty of soap & water.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P331: Do NOT induce vomiting.
P370+P378: In case of fire: Use carbon dioxide, powder or foam for extinction.
P391: Collect spillage.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P362: Take off contaminated clothing.
P636: Wash contaminated clothing before reuse.

Storage:
P403+P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Elimination:
P501: Dispose of contents/container to a collection of special or hazardous waste.

Section III
Composition Information/Information on Ingredients

Chemical Name: Nutmeg Oil
CAS No.: 8008-45-5 EINECS: 282-013-3

Concentration range of the constituent (% weight/weight): Not available.
Classification UN-GHS: Not available.

pin-2(3)-ene (20%-50%):
CAS No.: 80-56-8 EINECS: 201-291-9
Regulation EC 1272/2008: Asp. Tox. 1 – H304 ; Flam. Liq. 3 – H226 ; Skin Irrit. 2 – H315 ; Skin Sens. 1B – H317
Directive 67/548/CEE: R10 ; R38 ; R43 ; R65

thuj-4(10)-ene (10%-20%):
CAS No.: 3387-41-5 EINECS: 222-212-4
Regulation EC 1272/2008: Asp. Tox. 1 – H304 ; Flam. Liq. 3 – H226
Directive 67/548/CEE: R10 ; R65

pin-2(10)-ene (10%-20%):
CAS No.: 127-91-3 EINECS: 204-872-5
Regulation EC 1272/2008: Asp. Tox. 1 – H304 ; Flam. Liq. 3 – H226 ; Skin Irrit. 2 – H315 ; Skin Sens. 1B – H317
Directive 67/548/CEE: R10 ; R38 ; R43 ; R65

(R)-p-mentha-1, 8-diene (5%-10%): Index N: 601-029-00-7
CAS No.: 5989-27-5 EINECS: 227-813-5
Regulation EC 1272/2008: Aquatic Acute 1 – H400 ; Aquatic Chronic 1 – H410 ; Flam. Liq. 3 – H226 ; Skin Irrit. 2 – H315 ; Skin Sens. 1 – H317
Directive 67/548/CEE: R10 ; R38 ; R43 ; R50/53 ; R65

Nutmeg Oil Extra Indonesia
Revised 06/2015: This document replaces any previously issued document.
p-menth-1-en-4-ol (1% - 5%):
  CAS No.: 562-74-3  EINECS: 209-235-5
  Regulation EC 1272/2008:  Asp. Tox 4 – H302 ; Eye Irrit. 2A – H319 ; Skin Irrit. 2 – H315
  Directive 67/548/CEE:  R22 ; R38

para-Mentha-1, diene (1%-5%):
  CAS No.: 99-86-5  EINECS: 202-795-1
  Regulation EC 1272/2008:  Asp. Tox 1 – H304 ; Acute Tox. 4 – H302 ; Aquatic Chronic 2 – H411 ; Flam. Liq. 3 – H226
  Directive 67/548/CEE:  R10 ; R22 ; R51/53 ; R65

3, 7, 7, -trimethylbicyclo[4.1.0]hept-3-ene (1%-5%):
  CAS No.: 13466-78-9  EINECS: 236-719-3
  Regulation EC 1272/2008:  Asp. Tox 1 – H304 ; Flam. Liq. 3 – H226 ; Skin Irrit. 2 – H315 ; Skin Sens. 1B – H317
  Directive 67/548/CEE:  R10 ; R38 ; R43 ; R65

Safrol nat (1% - 5%):  Index N: 605-020-00-9
  CAS No.: 94-59-7  EINECS: 202-345-4
  Regulation EC 1272/2008:  Acute Tox. 4 – H302 ; Carc. 1B – H350 ; Muta. 2 – H341
  Directive 67/548/CEE:  R22 ; R45 ; R68

Isoeugenol (1% - 5%):
  CAS No.: 97-54-1  EINECS: 202-590-7
  Regulation EC 1272/2008:  Acute Tox. 4 – H312 ; Acute Tox. 4 – H302 ; Eye Irrit. 2A – H319 ; Skin Irrit. 2 – H315 ; Skin Sens. 1A – H317
  Directive 67/548/CEE:  R21/22 ; R36/38 ; R43

Eugenol (0.1% - 1%):
  CAS No.: 97-53-0  EINECS: 202-589-1
  Regulation EC 1272/2008:  Eye Irrit. 2A – H319 ; Skin Sens. 1B – H317
  Directive 67/548/CEE:  R36 ; R43

Methyleugenol (0.1% - 1%):
  CAS No.: 93-15-2  EINECS: 202-223-0
  Regulation EC 1272/2008:  Acute Tox. 4 – H302 ; Carc. 2 – H351 ; Muta. 2 – H341
  Directive 67/548/CEE:  R22 ; R40 ; R51/53 ; R68
Section IV
First-Aid Measures

Inhalation: Remove from exposure site to fresh air. Keep at rest. If breathing has stopped, administer artificial respiration & oxygen if available. Contact a physician if necessary.

Eye Contact: Flush immediately with clean water for at least 10 minutes. Contact a physician if irritation persists.

Skin Contact: Remove any contaminated clothing or shoes. Wash affected areas thoroughly with soap & water for at least 15 minutes, & flush with plenty of water. If irritation persists, seek medical advice.

Ingestion: Rinse mouth out with water. Do NOT induce vomiting. Seek medical advice immediately.

Most important symptoms & effects, both acute & delayed:
  Symptoms on Inhalation: Choking, drowsiness, respiratory disruptions.
  Symptoms on Eye Contact: Irritation, reddening.
  Symptoms on Skin Contact: Irritation, stinging.
  Symptoms on Ingestion: Queasiness, stomach aches.

Other: When assessing action, please take Risk & Safety Phrases into account.

Section V
Fire-Fighting Measures

Extinguishing media Recommended:
  Use C02, Dry Powder, or Foam type Extinguishers – spraying extinguishing media to the base of the flames. Do NOT use direct water jet on burning material.

Special measures: Avoid vapor inhalation. Do not inhale fire fumes or gases. Keep away from sources of ignition. Do not smoke. Wear a positive pressure self contained breathing apparatus & protective clothing. Cool down other threatened recipients with pulverized water.

Extinguishing Procedures: Closed containers may build up pressure when exposed to heat & should be cooled with water spray.
Section VI
Accidental Release Measures

Personal Precautions: Avoid inhalation & direct contact with skin & eyes. Use individual protective equipment (safety glasses, protective gloves, waterproof boots, suitable proactive clothing) in case of major spillages. Provide adequate ventilation.

Environmental Precautions: To avoid possible contamination of the environment; do not discharge into any drains, surface waters, or ground waters.

Cleaning up methods for Spillage: Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash). Place in covered containers using non-sparking tools & transport outdoors. Avoid open flames or sources of ignition (e.g. pilot lights on gas hot water heater). Ventilate area & wash spill site after material pickup is complete. Dispose of in accordance with current laws & regulations.

Section VII
Handling & Storage

Precautions in Handling: Apply good manufacturing practices & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene & do not eat, drink, or smoke whilst handling. Keep away from all ignition sources. Wash hands after use.

Storage Conditions: Store in tightly closed original container, in a cool, dry, & well ventilated area away from sources of ignition & protected from light. Keep air contact to a minimum. Stock accordingly to local/national regulations, following given precautions.

Fire Protection: Keep away from ignition sources & naked flames. Take precautions to avoid static discharges in working area.

Section VIII
Exposure Controls/Personal Protection

Exposure Control: To avoid eye & mucous membrane projection & according to the working area organization – wearing eye glasses & gloves is recommended.
Respiratory Protection: Avoid excessive inhalation of concentrated product vapor. Apply local ventilation where possible. Use personal breathing apparatus whenever deemed necessary.

Ventilation: The areas where the product is handled & stored should be adequately ventilated.

Skin Protection: Avoid contact with skin. Compatible chemical-resistant gloves are recommended. Wash contaminated gloves before reuse.

Eye Protection: Chemical safety goggles are recommended. Wash contaminated goggles before reuse.

Work/Hygiene Practices: Wash hands with soap & water after handling. Adapted personal protective equipment is advised.

Containers: Do NOT re-use empty containers. Quickly get clear of sponges, wovens, … etc, used to absorb the product. Keep away from food & drink.

Section IX
Physical & Chemical Properties

Appearance: Mobile liquid
Color: Pale yellow to yellow.
Odor: Spicy, characteristic.
Odor Threshold: Not available.
Vapor Density (mmHg): 2,000
Vapor Pressure: Not available.
pH: Not available.
Relative Density (+20 C): 0.865 – 0.920
Refractive Index: 1.4760 – 1.4870
Optical Rotation: +7 – +25
Melting Point/Freezing Point: Not available.
Solubility(ies): Ethanol / Oil / Solvents.
Initial Boiling Point & Boiling Range: Not available.
Flash Point: 42 C (Closed Cup)
Evaporation Rate: Not available.
Flammability (Solid Gas): Not available.
Upper/Lower Flammability or Exposure Limits: Not available.
Partition Coefficient: n-octanol/water: Not available.
Auto-Ignition Temperature: Not available.
Ebulition Point (C): 165,000
Decomposition Temperature: Not available.
Viscosity: 59,400
Solubility of preparation in water: Insoluble.

**Section X**
**Stability & Reactivity**

Reactivity: It presents no significant reactivity hazards by itself, or in contact with water. Avoid contact with strong acids, alkalis, or oxidizing agents.
Decomposition: Liable to cause smoke & acid fumes during combustion: carbon monoxide, carbon dioxide, & other non-identified organic compounds may be formed.
Chemical Stability: Product is stable & will not react violently with water.
Hazardous Reactions: Hazardous reaction will not occur if using conditions & prescriptions as followed.
Conditions to Avoid: Avoid contact or contamination with strong acids, alkalis, or oxidizing agents.
Materials to Avoid: Not relevant.
Hazardous Decomposition Products: Carbon monoxide & other unidentified organic compounds may be formed upon combustion.

**Section XI**
**Toxicological Information**

Contains no substances classified as dangerous according to Directive 67/548/EEC.

**Acute Toxicity:** Not available.
**Irritation:** Not available.
**Sensitization:** Not available.
**Chronic Exposure:** Not available.
**Cancerogenicity:** Not available.
**Mutagenicity:** Not available.
**Reproduction Toxicity:** Not available.
Section XII
Ecological Information

This substance is biodegradable & is unlikely to accumulate in the aquatic environment. Discharge of large quantities into the aquatic environment may kill fish & other aquatic organisms by oxygen depletion.

Acute Aquatic Toxicity: Not available.
Persistence & Degradability: Not available.
Bioconcentration Factor: Not available.
Soil Mobility: Not available.
Results of PBT & vPvB Assessment: Not available.
Other Adverse Effects: Do not allow the material to enter streams, sewers, or other waterways.

Section XIII
Disposal Considerations

Release to Atmosphere: Avoid.
Release to Surface Water: Avoid.
Release into Natural Environment: Avoid.
Destruction of Waste: Incinerate in accordance with local regulations.
Treatment of Empty Containers: Re-use inadvisable.
Waste Disposal Methods: Place material & absorbent into sealed containers & dispose of in accordance with current applicable laws & regulations.

Section XIV
Transportation Information

Transport the product in accordance with ADR for road transport, RID for rail transport, IMDG for sea transport, & ICAO/IATA for air transport.

UN Number
UN No. (ADR/RID/ADN): 1169
UN No. (IMDG): 1169
UN No. (ICAO): 1169
UN Proper Shipping Name: Extracts, Aromatic, Liquid

Transport Hazard Class(es)
ADR/RID/ADN Class: 3
ADR/RID/ADN Class: 3
ADR Label No.: 3
IMDG Class: 3
ICAO Class/Division: 3

Packaging Group
ADR/RID/ADN Packaging Group: III
IMDG Packaging Group: III
ICAO Packaging Group: III

Special Precautions for User
EMS Not available.
Emergency Action Code: Not available.
Hazard No. (ADR): Not available.
Tunnel Restriction Code: Not available.

Section XV Regulatory Information


Approved Code of Practice: Classification & Labeling of Substances & Preparations Dangerous for Supply.

Guidance Notes: Workplace Exposure Limits EH40.
Acronyms:

REACH: Regulation, Evaluation, Authorization of Chemicals
CSR: Chemical Safety Report
IFRA: International Fragrance Association
IOFI: International Organization of Food Industry
ATE: Acute Toxicity Estimation
ES: Exposure Scenario

Hazard Statements:
According to Regulation EC 1272/2008:

H302: Harmful if swallowed.
H304: May be fatal if swallowed & enters airways.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H350: May cause cancer.
H351: Suspected of causing cancer.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.
H226: Flammable liquid & vapour.
H341: Suspected of causing genetic defects.

According to Directive 67/548/EC:

R21: Harmful in contact with skin.
R22: Harmful if swallowed.
R36: Irritating to eyes.
R38: Irritating to skin.
R40: Limited evidence of a carcinogenic effect.
R43: May cause sensitization by skin contact.
R45: May cause cancer.
R50/53: Very toxic to aquatic organisms, & may cause long-term adverse effects in the aquatic environment.
R65: Harmful: May cause lung damage if swallowed.
R68: Possible risk of irreversible effects.

Section XVI
Other Information

Bibliography, data sources: IFRA IOFI Labeling Manuel 2013
Literature references & sources for data:


**Cosmetics Directive 7th Amendment:**
Restrictions may apply. A source of limonene & linalool, listed as sensitizers. Check maximum usage levels for skin care products.

**Conc. % Limits:**
The IFRA recommends that for areas exposed to sunshine, this oil may be limited to a maximum of 0.8% except for bath products, soaps, & other products which are washed off the skin. This restriction is due to the photo-toxic effects of the material.

**PACKAGING:**

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<th>SUITABILITY</th>
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Nutmeg Oil Extra Indonesia
Revised 06/2015: This document replaces any previously issued document.
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**SHELF LIFE:**
When stored within advised conditions, re-test after 12 months then at 3 monthly intervals up to a maximum shelf life of 36 months.

**Q.C. REQUIREMENTS:**
In-line with general product specification. Always satisfy suitability for specific application. Retest after 6 months.

The data provided in this standard safety data sheet is meant to represent typical data/analysis for this product & is correct to the best of our knowledge. The data was obtained from current & reliable sources, but this data is supplied without warranty, expressed, or implied regarding its correctness or accuracy. It is the user’s responsibility to determine safe conditions for the use of this product & to assume liability for loss, injury, damage, or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, & buyers should seek to verify their requirements & product use.