### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>1.1 PRODUCT IDENTIFICATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCT NAME</strong></td>
<td>BLACK PEPPER, ESSENTIAL OIL</td>
</tr>
<tr>
<td><strong>BIOLOGICAL DEFINITION</strong></td>
<td>THE VOLATILE OIL OBTAINED BY STEAM DISTILLATION FROM THE DRIED SLIGHTLY UNRIPE FRUITS OF PIPER NIGRUM L.</td>
</tr>
<tr>
<td><strong>INCI NAME</strong></td>
<td>PIPER NIGRUM FRUIT OIL</td>
</tr>
<tr>
<td><strong>SYNONYMS &amp; TRADE NAMES</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>INTERNAL PRODUCT CODE</strong></td>
<td>K0066</td>
</tr>
<tr>
<td><strong>CAS-No</strong></td>
<td>84929-41-9</td>
</tr>
<tr>
<td><strong>EC No.</strong></td>
<td>284-524-7</td>
</tr>
<tr>
<td><strong>EINECS No.</strong></td>
<td>284-524-7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.2 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPANY ADDRESS</strong></td>
<td>O&amp;3 Unit 2, Athelstan Business Park, Hanwell Lane, Hutton Conyers, Ripon, HG4 5BF, England.</td>
</tr>
<tr>
<td><strong>EMAIL</strong></td>
<td><a href="mailto:THOMASKERFOOT@OAND3.COM">THOMASKERFOOT@OAND3.COM</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMERGENCY CONTACTS</strong></td>
<td>MRS. ELEANOR WADE (07968 200167)</td>
</tr>
</tbody>
</table>
SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Classification (EU 2012/2008)</td>
<td></td>
</tr>
<tr>
<td>Human Health:</td>
<td>Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td></td>
<td>Skin Irrit. 2 H315 Causes skin irritation.</td>
</tr>
<tr>
<td></td>
<td>Skin Sens. 1 H317 May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Environment:</td>
<td>Aquatic Acute 1 H400 Very toxic to aquatic life.</td>
</tr>
<tr>
<td></td>
<td>Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

The full text for all hazard statements is displayed in Section 16.

2.2 Label Elements

- GHS Label

- GHS02
- GHS07
- GHS08
- GHS09

- Signal Word
- Danger.

- Contains
- Caryophyllene, d-limonene, beta-pinene, delta-3-carene

- Hazards Statement
- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H304 May be fatal if swallowed and enters airways.
- H410 Very toxic to aquatic life with long lasting effects.

- Signal Word
- None.

- Precautionary Statements
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P261 Avoid breathing dust/fume/gas/nist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P240 Ground/bond container and receiving equipment.
- P233 Keep container tightly closed.
- P242 Use only non-sparking tools.
- P273 Avoid release to the environment.
- P243 Take precautionary measures against static discharge.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P301+P310 If swallowed: immediately call a Poison Center or doctor/physician.
- P303+P361+P335 If on skin (or hair): remove/take off immediately all contaminated clothing.
- Rinse skin with water/shower.
- P362 If on skin: wash with plenty of soap and water.
- P332+P313 If skin irritation occurs: get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: get medical advice/attention.
- P331 Do NOT induce vomiting.
- P302+P352 If on skin: wash with plenty of soap and water.
- P330 Avoid contact with skin.
- P391 Collect spillage.
- P405 Store locked up.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Supplementary Precautionary Statements
- None.

Section 16 (Other Information): Risk & Safety phrases in full.

2.3 Other Hazards

- Adverse Physio-Chemical Properties
- Flammable liquid and vapour.

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SECTION 3: COMPOSITION OF INGREDIENTS

3.1 SUBSTANCES

- **20.0 – 35.0% Caryophyllene CAS-No.: 87-44-5 EC No.: 201-746-1 Classification (EC 1272/2008) Asp. Tox. 1 - H304**
- **15.0 – 25.0% d-Limonene CAS-No.: 5989-27-5 EC No.: 227-813-5 Classification (EC 1272/2008) Flammable Liquid, H226, Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315, Skin Sens. 1, H317**
- **5.0 – 15.0% Beta-Pinene CAS-No.: 127-91-3 EC No.: 204-872-5 Classification (EC 1272/2008) Flammable Liquid, H226, Asp. Tox. 1, H304, Aquatic Acute 1, H400; Aquatic Chronic 1, H410, Skin Sens. 1, H317**
- **5.0 – 15.0% Delta-3-Carene CAS-No.: 13466-78-9 EC No.: 236-719-3 Classification (EC 1272/2008) Flammable Liquid, H226, Asp. Tox. 1, H304, Aquatic Chronic 2, H411 Skin Sens. 1, H317**

3.2 MIXTURES

- **No Data.**

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

**GENERAL INFORMATION**
Always remove contaminated clothing immediately.

**INHALATION**
Get medical attention immediately. Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

**INGESTION**
Do not induce vomiting! Get medical attention immediately. Immediately call the Poison Centre or doctor. Rinse mouth with water and obtain medical attention.

**SKIN CONTACT**
Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

**EYE CONTACT**
Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

4.2 MOST IMPORTANT SYMPTOMS & EFFECTS (ACUTE & DELAYED)
The severity of the symptoms described will vary depending of the concentration and the length of exposure. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED
None expected, see Section 4.1 for further information.

SECTION 5: FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MATERIAL
FOAM, CO2, DRY CHEMICAL POWDER.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
Burning produces irritating, toxic and obnoxious fumes

5.3 ADVICE FOR FIRE-FIGHTERS
Special protective equipment for fire-fighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 ENSURE ADEQUATE VENTILATION OF THE WORKING AREA, EVACUATE PERSONNEL TO SAFE AREA, WEAR SUITABLE PROTECTIVE
<table>
<thead>
<tr>
<th>SECTION 7: HANDLING &amp; STORAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7.1 Precautions for safe-handling</strong></td>
</tr>
</tbody>
</table>

| **7.2 Conditions for safe storage, including any incompatibilities** | Storage class: Flammable liquid storage. Store only in the original receptacle. Keep container tightly sealed. Keep in cool, dry, ventilated storage and closed containers. Keep away from heat. |

| **7.3 Specific end use(s)** | Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices. |

<table>
<thead>
<tr>
<th>SECTION 8: EXPOSURE CONTROLS &amp; PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8.1 Control Parameters</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>8.2 Exposure Controls</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Protection</strong></td>
</tr>
<tr>
<td><strong>Hand Protection</strong></td>
</tr>
<tr>
<td><strong>Respiratory Equipment</strong></td>
</tr>
<tr>
<td><strong>Hygiene Measures</strong></td>
</tr>
<tr>
<td><strong>Engineering Measures</strong></td>
</tr>
<tr>
<td><strong>Skin Protection</strong></td>
</tr>
<tr>
<td><strong>Personal Protection</strong></td>
</tr>
<tr>
<td><strong>Other Protection</strong></td>
</tr>
<tr>
<td><strong>Process Conditions</strong></td>
</tr>
<tr>
<td><strong>Environmental Exposure Controls</strong></td>
</tr>
</tbody>
</table>

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SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Clear pale green - Yellow - Blue</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic, Warm &amp; Spicy</td>
</tr>
<tr>
<td>Relative Density @ 20°C</td>
<td>0.864 – 0.884</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>46 - 50°C</td>
</tr>
<tr>
<td>Refractive Index @ 20°C</td>
<td>1.474 – 1.492</td>
</tr>
<tr>
<td>Solubility in Water @ 20°C</td>
<td>Insoluble in Water</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY & REACTIVITY

10.1 Reactivity

10.2 Chemical Stability

Stable under suggested storage conditions (<15°C).

10.3 Possibility of Hazardous Reactions

Flammable liquid.

10.4 Conditions to Avoid

Storage at high temperatures. Do not store above 15°C. Avoid heat, flames and other sources of ignition.

10.5 Incompatible Materials

Avoid concentrated acids, alkaüs & oxidising agents.

10.6 Hazardous Decomposition Products

This product does not decompose under normal conditions. Under fire conditions the product will produce a mixture of irritating fumes & smoke & carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Toxicological Effects

Acute Toxicity

No Data

Skin Irritation

Irritant to skin and mucous membranes. May cause allergic skin reaction.

Eye Damage or Irritation

No Data.

Respiratory or Skin Sensitivity

May be fatal if swallowed and enters airways.

Germ Cell Mutagenicity

No Data.

Carcinogenicity

No Data.

Reproductive Toxicity

No Data.

STOT – Single Exposure

No Data.

STOT – Repeated Exposure

No Data.

Aspiration Hazard

May be fatal if swallowed and enters airways (H304).

Other Information

Classification Guidelines for Preparations as issued in the latest version. Irritant.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long

12.2 Persistence & Degradability

No Data.

12.3
### SECTION 13: DISPOSAL INFORMATION

| 13.1 Waste Treatment Methods | Always recover spilled product. Discard waste material with authorized waste management services. Act in accordance with local & national waste regulations. |

### SECTION 14: Transport Information

| 14.1 Transport Information | ROAD: UN 1169  
SEA: UN 1169  
AIR: UN 1169 |
|-----------------------------|--------------------------------------------------|
| 14.2 UN Shipping Name | ADR: 1169 EXTRACTS, AROMATIC, LIQUID, ENVIRONMENTALLY HAZARDOUS, SPECIAL PROVISION 640E  
IMDG: EXTRACTS, AROMATIC, LIQUID (D-LIMONENE, BETA-PINENE), MARINE POLLUTANT  
IATA: EXTRACTS, AROMATIC, LIQUID. |
| 14.3 Transport Hazard Class(es) | ADR/RID/ADN Class: 3: FLAMMABLE LIQUID  
IMDG Class: 3  
ICAO Class/DIVISION: 3  
Transport Labels: FLAMMABLE |
| 14.4 Packing Group | ADR/RID/ADN Packing Group: III  
IMDG Packing Group: III  
ICAO Packing Group: III |
| 14.5 Environmental Hazards | ENVIRONMENTALLY HAZARDOUS / MARINE POLLUTANT |
| 14.6 Special Precautions for User | WARNING: FLAMMABLE LIQUID.  
DANGER CODE (KENMERI): 30  
EMS NUMBER: F-E-S-D  
ADR  
LIMITED QUANTITIES (LQ): 5L |
<table>
<thead>
<tr>
<th><strong>SECTION 15: REGULATORY INFORMATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>15.1 PRODUCT SPECIFIC SAFETY, HEALTH &amp; ENVIRONMENTAL REGULATIONS &amp; LEGISLATION</strong></td>
</tr>
</tbody>
</table>

| **STATUTORY INSTRUMENTS** | THE CHEMICALS (HAZARD INFORMATION & PACKAGING FOR SUPPLY REGULATIONS 2009 (S.I.2009 No 716). |
| **APPROVED CODE OF PRACTICE** | CLASSIFICATION & LABELLING OF SUBSTANCES & PREPARATIONS DANGEROUS FOR SUPPLY. SAFETY DATA SHEETS FOR SUBSTANCES & PREPARATIONS. |
| **GUIDANCE NOTES** | WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108. |
| **15.2 CHEMICAL SAFETY ASSESSMENT** | ASSESSMENT HAS NOT BEEN CARRIED OUT AS THIS IS A NON-HAZARDOUS MATERIAL ACCORDING TO ARTICLE 31 OF REACH 1907/2006. |

<table>
<thead>
<tr>
<th><strong>SECTION 16: OTHER INFORMATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL</strong></td>
</tr>
</tbody>
</table>

H226 FLAMMABLE LIQUID AND VAPOUR.
H302 HARMFUL IF SWALLOWED.
H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.
H315 CAUSES SKIN IRRITATION.
H317 MAY CAUSE AN ALLERGIC REACTION.
H319 CAUSES SERIOUS EYE IRRITATION.
H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
H412 HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

| **TRAINING INSTRUCTIONS: REFER TO POSSIBLE HAZARD BEFORE USE OF THIS PRODUCT.** |

| **ABBREVIATIONS & ACRONYMS:** |

MSDS MATERIAL SAFETY DATA SHEET.
INCI INTERNATIONAL NOMENCLATURE OF COSMETIC INGREDIENTS.
CAS CHEMICAL ABSTRACT SERVICE.
IMDG INTERNATIONAL MARITIME CODE FOR DANGEROUS GOODS.
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