

Star Anise Essential Oil

Version: 02

Date Implemented: July 2009

Not classified as hazardous according to criteria of Worksafe Australia

| 1. COMPANY DETAILS | | | |
|--|--|--|--|
| 1.1 Company: | Saffire Blue Inc. | | |
| 1.2 Address: | 1444 Bell Mill Road, Tillsonburg, ON N4G4G9 Canada | | |
| 1.3 Telephone Number: | Tel: 519-286-0295 | | |
| 1.4 Fax Number: | | | |
| 1.5 Email: | info@saffireblue.ca | | |
| 1.6 Web Site: | www.saffireblue.ca | | |
| 2. PRODUCT IDENTIFICATION AND COMPOSITION | | | |
| 2.1 Product Name: Star Anise Essential Oil | | | |
| 2.2 Botanical Name: | Illicium verum hook.f. | | |
| 2.3 Product Code: | OEANIS | | |
| 2.4 AUSTRALIAN AICS Na | i me: Anise Oil | | |
| 2.5 USA INCI Name: | Illicium Verum [Anise] Oil | | |
| 2.6 EU INCI Name: | Illicium Verum | | |

2.7 Ingredients:

| Component Entity | CAS Number | EINECS Number | Proportions [%w/w] |
|--------------------------|------------|---------------|--------------------|
| Star Anise Essential Oil | 8007-70-3 | Not allocated | 100% pure |

2.8 Uses: Flavouring Agent; Fragrance Ingredient. Mouthwashes and Breath fresheners [liquids and sprays].



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| 3. HAZARD IDENTIFICATION | | | | | |
|---------------------------------|---|--|--|--|--|
| 3.1 Physical - Chemical Hazards | 5 | | | | |
| Explosion: | None identified. | | | | |
| Flammable: | Combustible liquid, produces oxides of carbon when burning. | | | | |
| Oxidizing: | Not applicable. | | | | |
| Toxic: | None identified. | | | | |
| Radioactive: | Not applicable. | | | | |
| Corrosive: | None identified. | | | | |
| Miscellaneous: | None identified. | | | | |
| 3.2 Environmental Hazards: | None identified. | | | | |
| 3.3 Health Hazards | | | | | |
| Acute Effects: Swallowed: | May be harmful. | | | | |
| Eye: | May be irritating. | | | | |
| Skin: | May be irritating. | | | | |
| Inhalation: | May be harmful. | | | | |
| Chronic Effects: | None identified. | | | | |
| Mutagenic Effects: | None identified. | | | | |
| Reproductive Effects: | None identified. | | | | |
| Carcinogenic Effects: | None identified. | | | | |
| Sensitisation: | None identified. | | | | |
| Infectious: | Not applicable. | | | | |
| 4. FIRST AID | | | | | |
| 4.1 Eye Contact: | Flush immediately with clean water for at least 15 minutes. Ensure irrigation | | | | |
| - | under eyelids. Do not try to remove contact lenses unless trained. | | | | |
| | Contact a physician as necessary. | | | | |
| 4.2 Skin Contact: | Remove any contaminated clothing and footwear. Clean before re-use. | | | | |
| | Wash affected areas thoroughly with soap and water for at least 15 minutes. | | | | |
| | Contact a physician as necessary. | | | | |
| 4.3 Inhalation: | Remove from the exposure to fresh air. If breathing has stopped, administer | | | | |
| | artificial respiration and oxygen if available. | | | | |
| | Contact a physician as necessary. | | | | |
| 4.4 Ingestion: | Do Not induce vomiting. | | | | |
| - | Wash out mouth with water and give water slowly to dilute [as much as casualty | | | | |
| | can comfortably drink] provided person is conscious. | | | | |
| | Never give liquid to a person showing signs of being sleepy or with reduced | | | | |
| | awareness; i.e. becoming unconsciousness. | | | | |
| | Contact a physician or local poison control centre immediately. | | | | |
| | If vomiting occurs, lean patient forward or place on left side [head-down position, | | | | |
| | if possible] to maintain open airway and prevent aspiration. | | | | |
| 4.5 Contact Point: | Poisons Information Centre Sydney [T] 131126 | | | | |
| 4.6 Advice to Doctor: | Treat symptomatically. Note the nature of this product. | | | | |
| | | | | | |



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| 5. FIRE FIGHTING MEASURES | | | | | | |
|--|---|--|--|--|--|--|
| 5.1 Extinguishing Media:5.2 Unsuitable Extinguishing Media:5.3 Unusual Firefighting Hazards:5.4 Special Procedures: | Carbon Dioxide; Dry Chemical; Universal-Type Foam. Water Spray; Others not established. None identified. Determine the need to evacuate or isolate the area according to your local | | | | | |
| 5.5 Protective Equipment:5.6 Combustion Products:5.7 Contact Point: | emergency plan. Self-contained breathing apparatus and protective clothing should be worn when fighting fires involving essential oils or chemicals. Oxides of carbon. Dial 000 Emergency in case of fire [In Australia] or Local Emergency Authority [Out of Australia]. | | | | | |
| 6. ACCIDENTAL RELEASE MEASUR | RES | | | | | |
| 6.1 Personal Precautions: | Use of self-contained breathing apparatus is recommended for any major chemical spill. Refer also to section 8. | | | | | |
| 6.2 Safety Precautions: | Eliminate ALL ignition sources. Ventilate area. Determine the need to evacuate or isolate the area according to your local emergency plan; | | | | | |
| 6.3 Environmental Precautions: | Keep away from drains, surface and ground water. Report spills to appropriate Authorities if required. | | | | | |
| 6.4 Methods For Cleaning Up: | Contain spill and recover free product. Absorb remainder on vermiculite or other suitable absorbent material. Wipe small spills with cloth. Clean with hot water and detergent. Refer also to Section 13. for disposal procedures. | | | | | |
| 7. SAFE HANDLING AND STORAGE | | | | | | |
| 7.1 Handling: 7.2 Storage: | 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. Not a hazardous material. A Scheduled 5 Poison. Containers should be kept closed in order to minimise contamination. Store in a cool, dry, well ventilated place protected from light. Keep from extreme heat and away from ALL sources of ignition. Glass, laquer-lined steel/tin, aluminium and F/HDPE acceptable containers. Make sure the material does not come into contact with substances listed as: "Materials to Avoid", Refer to Section 10. | | | | | |
| 7.3 Unsuitable Packaging Materials: 7.4 Special Procedures: | None established. None established. | | | | | |



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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

| 8.1 Respiratory Protection: | None generally required. Use NIOSH approved respirator in confined areas or if ventilation is inadequate. |
|-----------------------------------|--|
| 8.2 Ventilation Protection: | Ensure adequate ventilation to keep exposure levels to a minimum. General exhaust is recommended. |
| 8.3 Eye Protection: | Using goggles or face shield is recommended. |
| 8.4 Protective Gloves: | Using chemical resistant gloves is recommended. |
| 8.5 Protective Clothing: | Using chemical resistant clothing is recommended. |
| 8.6 Protective Equipment: | An eyewash fountain and / or safety shower should be available in the work |
| | area. |
| 8.7 Special Engineering Controls: | None established. |
| 8.8 Other Personal Protection: | Consult the following Australian Standards for general advice regarding safety clothing and equipment: Respiratory Equipment: AS/NZS 1715 , |
| | Protective Gloves: AS 2161, Industrial Clothing: AS 2919, |
| | Industrial Eye Protection: AS 1336 and AS/NZS 1337, |
| | Occupational Protective Footwear: AS/NZS 2210. |
| 8.9 Note: | These precautions are for room temperature handling. Use at elevated |
| | temperature or aerosol / spray applications may require additional |
| | precautions. |

| 9. PHYSICAL AND CHEMICAL PROPERTIES | | | | | |
|--|--|--------|-------------------|-------------------|------------|
| TEST | SPECIFICATION | | | | |
| 9.1 Appearance: | Clear, pale yellow to yellow liquid | | | iid | |
| 9.2 Odour: | | | Characteris | stic | |
| Odour Threshold: | | | Not availab | ole. | |
| 9.3 Specific Gravity: | | | 0.975 to 0. | 992 @ 20°C | |
| 9.4 Refractive Index: | | | 1.550 to 1. | 560 @ 20°C | |
| 9.5 Optical Rotation: | | | Not availab | ole. | |
| 9.6 pH: | | | Not availab | ole. | |
| 9.7 Solubility: | Soluble in ethyl alcohol | | | | |
| 9.8 Solubility in Water: | | | Insoluble | | |
| 9.9 Flash Point: | 83°C [Test unknown] | | | | |
| 9.10 Flammability Limits [as % v/v in Air] | 9.10 Flammability Limits [as % v/v in Air] | | | | |
| Lower Explosion Limit: | t: Not available. | | | | |
| Upper Explosion Limit: | Not available. | | | | |
| 9.11 Autoignition Temperature: | Not available. | | | | |
| 9.12 Melting Point: | Not available. | | | | |
| 9.13 Boiling Point: | Not available. | | | | |
| 9.14 Vapour Pressure: | Not available. | | | | |
| 9.15 Vapour Density: | Not available. | | | | |
| 9.16 GAS CHROMATOGRAPH ANALYSI | S and | EFFA L | isted Sensitisers | & IFRA Notifiable | Substances |
| CONSTITUENT | IFRA | EFFA | CAS Number | EINECS Number | RANGE |

| 9.16 GAS CHROMATOGRAPH ANALYSIS and EFFA Listed Sensitisers & IFRA Notifiable Substances | | | | | |
|--|------|------|------------|---------------|-------|
| CONSTITUENT | IFRA | EFFA | CAS Number | EINECS Number | RANGE |
| Linalool: | YES | YES | 78-70-6 | 201-134-4 | < 5% |
| Limonene: | YES | YES | 138-86-3 | 205-341-0 | < 3% |



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| 10. STABILITY AND REACTIVITY | | |
| 10.1 Stability: | Chemically stable, non hazardous material. | |
| - | This material presents no significant reactivity hazard. | |
| 10.2 Conditions to Avoid: | None established. | |
| 10.3 Materials to Avoid: | Strong acids, strong alkalis and oxidizing agents. | |
| 10.4 Flammability: | Combustible liquid. | |
| 10.5 Hazardous Polymerization: | Will not occur. | |
| 10.6 Hazardous Combustion or | Carbon monoxide and unidentified organic compounds may be forr | nec |
| Decomposition Products: | during combustion. | |
| 11. TOXICOLOGICAL INFORMATION | ON | |
| 11.1 Acute Toxicity | | |
| LD50 [Oral]: | Not tested on animals – So not available. | |
| LD50 [Dermal]: | Not tested on animals – So not available. | |
| LC50 [Inhalation]: | Not tested on animals – So not available. | |
| 11.2 Exposure Limits | There is a blanket recommendation of 10 mg/m ³ for inspirable dust | S OI |
| | mists when limits have not otherwise been established. | |
| OSHA TWA: | None established. | |
| OSHA STEL: | None established. | |
| ACGIH TWA: | None established. | |
| ACGIH STEL: | None established. | |
| NOHSC TWA: | None established. | |
| NOHSC STEL: | None established. | |
| 11.3 Short Term Toxicity: | Not available. | |
| 11.4 Long Term Toxicity: | Not available. | |
| 11.5 Human Exposure Tests: | Not available. | |
| 12. ECOLOGICAL INFORMATION | | |
| 12.1 Eco-toxicity: | None established. Avoid pollution to soil, rivers and the ocean. | |
| 12.2 Mobility: | Low mobility in the soil. | |
| 12.3 Persistence & Degradability: | Low persistence level and readily biodegradable. | |
| 12.4 Bio-accumlative Potential: | None established. | |
| 12.5 Other Adverse Effects: | None established. | |
| 13. DISPOSAL CONSIDERATION | | |
| 13.1 Waste Material: | Place material and / or absorbent into sealed containers and dispose of in | |
| | accordance with current applicable laws and regulations. | |
| | Refer to local Authority advice. | |
| 13.2 Contaminated Packaging: | Dispose of in accordance with current applicable laws and regulations. | |
| | Refer to local Authority advice. | |
| 42.2 Note: | | |

13.3 Note:

Empty containers can have residues, gases and mists. Use the proper Waste Disposal Methods & Procedures for Empties as well.



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| 14. TRANSPORT INFOR | MATION | | | | | |
| 14.1 Transportation: | Not Dange | erous Goods according to criteri | a of the Australian Dangerous Goods | | | |
| - | Code for T | Fransport by Road and Rail. No | special transport required. | | | |
| | | | losives], 2.1 [Flammable Gases] [nb | | | |
| | | | nous Gases], 4.2 [Spontaneously | | | |
| | | | Agents], 5.2 [Organic Peroxides], 7 | | | |
| | | ve Substances], and Foodstuffs | or Foodstuff empties. | | | |
| 14.2 Proper Shipping Na | | | | | | |
| 14.3 UN Number: | Not alloca | | | | | |
| 14.4 Packaging Group: | Not allocat | | | | | |
| 14.5 DG Class: | Not alloca | | | | | |
| 14.6 Poison Schedule: | Schedule | | | | | |
| 14.7 Hazchem Code: | Not alloca | E | | | | |
| 14.8 Maritime Transport | | | ation ICAO-TI and IATA-DGR | | | |
| IMDG Class: | Not allocated. | ICAO / IATA | | | | |
| Label: | Not allocated. | Label: | Not allocated. | | | |
| UN Number: | Not allocated. | UN Number: | | | | |
| Packaging Group: | | Packaging C | Group: Not allocated. | | | |
| EMS Number: | Not allocated. | | | | | |
| Marine Pollutant: | Not Regulated. Not Regulated. | | ning Not Dogulated | | | |
| Proper Shipping Name: | Not Regulated. | Proper Ship Name: | ping Not Regulated. | | | |
| | | Naille. | | | | |
| 15. REGULATORY INFO | | tod | | | | |
| 15.1 Risk Symbols: 15.2 Risk Phrases: | Not alloca Not alloca | | | | | |
| 15.3 Safety Phrases: | Not alloca | | | | | |
| 15.4 Warning Statements: | Not alloca | | | | | |
| 15.5 Safety Directions: | | tact with eyes. | | | | |
| | | Wear eye protection when mixing or using. | | | | |
| | | tact with skin. | | | | |
| | | ective gloves when mixing or us | sina. | | | |
| | | ds after use. | 5 | | | |
| | 11 No smokir | ng. | | | | |
| | 15 Store und | | | | | |
| | 23 Keep awa | y from heat, sparks and naked f | lames. | | | |
| | - | tact with food. | | | | |
| 15.6 Standard Statements: | | | Centre [Phone eg Australia 131126; | | | |
| | | and 0800 764 766] or a doctor. | | | | |
| | G3 If swallow | ed, do NOT induce vomiting. | | | | |



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16. ADDITIONAL INFORMATION

16.1 DISCLAIMER

The information contained in this Material Safety Data Sheet is obtained from current and reliable sources. Saffire Blue Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This Material Safety Data Sheet summarises our best current knowledge of the health and safety hazard information of the product. This document is thus, intended only as a guide to the appropriate precautionary handling of the material by properly trained personnel using this product. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. As the ordinary or otherwise use(s) of this product is outside the control of Saffire Blue Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. Saffire Blue Inc. expressly disclaims responsibility as to the ordinary or otherwise use(s). Furthermore, nothing contained herein should be considered as a recommendation by Saffire Blue Inc. as to the fitness for any use. The liability of Saffire Blue Inc. is limited to the value of the goods and does not include any consequential loss. Saffire Blue Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. Saffire Blue Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties.

16.2 MANUFACTURED PRODUCTS INGREDIENT DISCLAIMER

As the availability of ingredients and raw materials is not always certain whether due to changes in nature or otherwise, Saffire Blue Inc. reserves the right to substitute alternate ingredients/raw materials in the manufacture of its products and bases in order to maintain supply to its customers. Customers should always refer to the ingredients label as affixed to each product or to specification sheets which are current at the time of supply of the product.