SAFETY DATA SHEET
STAR ANISE OIL

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME: STAR ANISE OIL

PRODUCT NO: RM019

SYNONYMS, TRADE NAMES: ANISEED OIL

SUPPLIER

J M Loveridge Ltd
Unit 5, Kingsway
Walworth Industrial Estate, Andover
Hampshire, SP10 5LQ
+44 (0) 1264 367610
+44 (0) 1264 351761
Mr. S Knight – admin@jmloveridge.com

EMERGENCY CONTACT NUMBER:

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin sensitisation	Category 1 – (H317)
Germ cell mutagenicity	Category 2 – (H341)
Carcinogenicity	Category 2 – (H351)
Chronic aquatic toxicity	Category 2 – (H411)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Full text of R-Phrases: see Section 16

Hazard Symbols

Xn – Harmful

N – Dangerous for the environment

R-code(s)

R40;R43;R51/53;R68

Label Elements

Signal Word: Warning

Hazard Statements: H317 – May cause an allergic skin reaction
H341 – Suspected of causing genetic defects
H351 – Suspected of causing cancer
H411 – Toxic to aquatic life with long lasting effects

Precautionary Statements – EU (§28, 1272/2008):
P280 – Wear eye protection/face protection
P280 – Wear protective gloves/protective clothing/eye protection/face protection

Other Hazards

No information available

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Chemical Name	EC-No	CAS-No	Weight - %	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No 1272/2008 [CLP]	REACH Registration Number
Anethole	224-052-0	4180-23-8	85-95	Xi;R43 N;R51/53	Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	No data available
Methyl Chavicol	205-427-8	140-67-0	2-10	Xn;R22 Carc.Cat.3; R40; Muta.Cat.3; R68; Xi; R43	Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 2 (H351) STOT SE 2 (H371) Acute Tox. 4 (H302)	No data available
Limonene	227-813-5	5989-27-5	1-2.5	FL; R10 Xn;R65 Xi;R38 R43 N;R50/53;	Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam Liq. 3 (H226)	No data available
3, 7-Dimethylocta-1, 6-dien-3-ol	201-134-4	78-70-6	1-2.5	Xi;R38	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Acute 3 (H402)	No data available

Full text of R-Phrases: see Section 16
Full text of H- and EUH-phrases: see Section 16

4 FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

SKIN CONTACT

Wash off immediately with soap and plenty of water and remove all contaminated clothes and shoes

EYE CONTACT

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

INHALATION
Remove to fresh air
INGESTION
Clean mouth out with water and drink afterwards plenty of water
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED
SYMPTOMS
May cause an allergic skin reaction. See Section 11: Toxicological Information.
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED
NOTES TO DOCTORS
Treat symptomatically

5 FIRE-FIGHTING MEASURES

EXTINGUSIHING MEDIA
SUITABLE EXTINGUISHING MEDIA
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
UNSUITABLE EXTINGUISHING MEDIA
Water
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
SPECIAL HAZARDS ARISING FROM THE CHEMICAL
Thermal decomposition can lead to release of irritating and toxic gases and vapours
ADVICE FOR FIREFIGHTERS
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
PERSONAL PRECAUTIONS
Ensure adequate ventilation, especially in confined areas.
FOR EMERGENCY RESPONDERS
Use personal protection recommended in Section 8.
ENVIRONMENTAL PRECAUTIONS
See Section 12 for additional Ecological Information.
METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP
METHODS FOR CONTAINMENT
Prevent further leakage or spillage if safe to do so.
METHODS FOR CLEANING UP
Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.
REFERENCE TO OTHER SECTIONS
See Section 8 for more information. See Section 13 for more information.

7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
ADVICE ON SAFE HANDLING
Ensure adequate ventilation, especially in confined areas. Use personal protection recommended in Section 8.

GENERAL HYGIENE CONSIDERATIONS
Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke.
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATABILITIES
STORAGE CONDITIONS
Keep container tightly closed in a dry and well-ventilated place
SPECIFIC END USE(S)
No information available

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS
EXPOSURE LIMITS

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Limonene 5989-27-5	-	-	TWA: 1000 mg/m3 STEL: 1500 mg/m3	-	TWA: 5 ppm TWA: 28 mg/m3 H*
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 140 mg/m3 STEL: 50 ppm STEL: 280 mg/m3	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Limonene 5989-27-5	-	TWA: 7 ppm TWA: 40 mg/m3 STEL: 14 ppm STEL: 80 mg/m3	-	TWA: 25 ppm TWA: 140 mg/m3 STEL: 25 ppm STEL: 140 mg/m3	-

Derived No Effect Level (DNEL) No Information available
Predicted No Effect Concentration (PNEC) No Information available

EXPOSURE CONTROLS
ENGINEERING CONTROLS
Ensure adequate ventilation, especially in confined areas
PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION
Avoid contact with eyes. Wear safety glasses with side-shields (or goggles)
HAND PROTECTION
Wear protective gloves
SKIN AND BODY PROTECTION
Wear suitable protective clothing
RESPIRATORY PROTECTION
None under normal use conditions
GENERAL HYGIENE CONSIDERATIONS
Regular cleaning of equipment, work area and clothing is recommended
ENVIORNMENTAL EXPOSURE CONTROLS
Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Colour:	Colourless or light green
Physical State:	Liquid
Odour:	No information available
Odour Threshold:	No information available
Property	
pH:	No information available
Melting Point/Freezing Point:	No information available
Boiling Point/Boiling Range:	No information available
Flash Point:	92°C/197.6°F
Evaporation Rate:	No information available
Flammability (solid, gas):	No information available
Flammability Level in Air	
Upper Flammability Limit:	No information available
Lower Flammability Limit:	No information available
Vapour Pressure:	No information available
Vapour Density:	No information available
Specific Gravity:	No information available
Water Solubility:	No information available
Solubility(ies):	No information available
Partition Coefficient:	No information available
Autoignition Temperature:	No information available
Decomposition Temperature:	No information available
Kinematic Viscosity:	No information available
Dynamic Viscosity:	No information available
Explosive Properties:	No information available
Oxidising Properties:	No information available
Other Information	
Softening Point:	No information available
Molecular Weight:	No information available
VOC Content (%):	No information available
Density:	0.982 @ 20°C
Bulk Density:	No information available

10 STABILITY AND REACTIVITY

REACTIVITY
No data available
CHEMICAL STABILITY
Stable under normal conditions
POSSIBILITY OF HAZARDOUS REACTIONS
None under normal processing
CONDITIONS TO AVOID
Heat, flames and sparks. Exposure to air or moisture over prolonged periods
INCOMPATIBLE MATERIALS
No information available

HAZARDOUS DECOMPOSITION PRODUCTS
None under normal use conditions

11 TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS
ACUTE TOXICITY
INHALATION: No known effect
EYE CONTACT: No known effect
SKIN CONTACT: No known effect
INGESTION: No known effect

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Anethole	2090 mg/kg (Rat)		
Methyl Chavicol	1230 mg/kg (Rat)		
Limonene		>5 g/kg (Rabbit)	
3, 7-Dimethylocta-1, 6-dien-3-ol	2790 mg/kg (Rat)		

NUMERICAL MEASURES OF TOXICITY – PRODUCT INFORMATION
The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 2,069.00
UNKNOWN ACUTE TOXICITY
Acute oral toxicity – 0% of the mixture consists of ingredient(s) of unknown oral toxicity
Acute dermal toxicity – 0% of the mixture consists of ingredient(s) of unknown dermal toxicity
Acute inhalation toxicity – gas – 0% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
Acute inhalation toxicity – vapour – 0% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
Acute inhalation toxicity – dust/mist – 0% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
SYMPTOMS
May cause an allergic skin reaction

12 ECOLOGICAL INFORMATION

TOXICITY
ECOTOXICITY
Toxic to aquatic life with long lasting effects. May cause long lasting harmful effects to aquatic life.
0% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Limonene	-	0.619-0.796: 96h Pimephales promelas mg/L LC50 flow-through 35: 96h Oncorhynchus mykiss mg/L LC50	-
3, 7-Dimethylocta-1, 6-dien-3-ol	88.3: 96h Desmondesmus subspicatus mg/L EC50	-	20: 48h Daphnia magna mg/L EC50

PERSISTENCE AND DEGRADABILITY
No information available
BIOACCUMULATIVE POTENTIAL

Chemical Name	Partition Coefficient
3, 7-Dimethylocta-1, 6-dien-3-ol	3.1

MOBILITY IN SOIL
No information available
RESULTS OF PBT AND vPvB ASSESSMENT
No information available
OTHER ADVERSE EFFECTS

13 DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS
WASTE FROM RESIDUES/UNUSED PRODUCTS
Disposal should be in accordance with applicable regional, national and local laws and regulations.
CONTAMINATED PACKAGING
Improper disposal or reuse of this container may be dangerous and illegal.

14 TRANSPORT INFORMATION

IMDG/IMO

UN/ID No	3082
PROPER SHIPPING NAME	Environmentally hazardous substance, Liquid, N.O.S (Star Anise Oil BP/EP, Anethole)
HAZARD CLASS	9
PACKING GROUP	III
MARINE POLLUTANT	This material meets the definition of a marine pollutant
ENVIRONMENTAL HAZARD	Yes
SPECIAL PROVISIONS	None
ENVIRONMENTAL HAZARD	Yes

ADR/RID

UN/ID No	3082
PROPER SHIPPING NAME	Environmentally hazardous substance, Liquid, N.O.S (Star Anise Oil BP/EP)
HAZARD CLASS	9
PACKING GROUP	III
ENVIRONMENTAL HAZARD	Yes
SPECIAL PROVISIONS	None

IATA

UN/ID No	3082
PROPER SHIPPING NAME	Environmentally hazardous substance, Liquid, N.O.S (Star Anise Oil BP/EP)
HAZARD CLASS	9
PACKING GROUP	III
ENVIRONMENTAL HAZARD	Yes

SPECIAL PROVISIONS None

15 REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Chemical Name	French RG number	Title
Limonene 5989-27-5	RG 84	-

Water hazard class (WGK) Not determined

EUROPEAN UNION

Take note of Directive 98/24/EC on the protection of the health and safety workers from the risks related to chemical agents at work.

OZONE-DEPLETING SUBSTANCES (ODS) REGULATION (EC) 1005/2009

Not applicable.

INTERNATIONAL INVENTORIES

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
IECSC	Complies
AICS	Complies

LEGEND

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS – European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS – Japan Existing and New Chemical Substances

IECSC – China Inventory of Existing Chemical Substances

KECL – Korean Existing and Evaluated Chemical Substances

PICCS – Philippines Inventory of Chemicals and Chemical Substances

AICS – Australian Inventory of Chemical Substances

CHEMICAL SAFETY ASSESSMENT

No information available

16 OTHER INFORMATION

KEY OR LEGEND TO ABBREVIATIONS AND ACRONYMS USED IN THE SAFETY DATA SHEET

FULL TEXT OF R-PHRASES REFERRED TO UNDER SECTIONS 2 AND 3

R22 – Harmful if swallowed

R38 – Irritating to skin

R40 – Limited evidence of a carcinogenic effect

R43 – May cause sensitization by skin contact

R68 – Possible risk of irreversible effects
R10 – Flammable
R65 – Harmful: may cause lung damage if swallowed
R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTION 3
H317 – May cause an allergic skin reaction
H341 – Suspected of causing genetic defects
H351 – Suspected of causing cancer if inhaled
H302 – Harmful if swallowed
H411 – Toxic to aquatic life with long lasting effects
H304 – May be fatal if swallowed and enters airways
H315 – Causes skin irritation
H400 – Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H226 – Flammable liquid and vapour

LEGEND
SVHC: Substances of Very High Concern of Authorisation:

LEGEND SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

This material safety data sheet complies with the requirements of Regulation (EC) No 1907/2006