

SAFETY DATA SHEET



Revision date: 29-Apr-2022

Revision Number 2

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier

Product Name FRAGRANCE LEMON 25710

Product Code(s) 000000038916

Other means of identification

UN number 3082

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended use Fragrances.

Uses advised against No information available.

Supplier

Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia
ABN:51 600 546 512
70 Marple Avenue
Villawood NSW 2163
Australia

Telephone Number: +61 2 8717 2929

Facsimile: +61 2 9755 9611

Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

GHS Classification

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

Flammable liquids	Category 4
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

SIGNAL WORD

Warning

Label elementsEnvironment
Health hazard
Exclamation mark**Hazard statements**

H227 - Combustible liquid
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H361 - Suspected of damaging fertility or the unborn child

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:
 H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Avoid breathing dust / fume / gas / mist / vapours / spray
 Wash hands thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves / protective clothing / eye protection / face protection
 Avoid release to the environment

Precautionary Statements - Response

Specific treatment (see First aid on this SDS)
 If exposed or concerned: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.
 Collect spillage

Precautionary Statements - Storage

Store in a well-ventilated place
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards which do not result in classification

Toxic to aquatic life with long lasting effects

Poisons Schedule (SUSMP)

None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixture**

Chemical name	CAS No.	Weight-%
Citral	5392-40-5	10-<30
1,6-Octadien-3-ol, 3,7-dimethyl- (Linalool)	78-70-6	1-<10
2-methyl-3-(4-tert.-butylphenyl)-propanal (Lilial)	80-54-6	1-<10
Diethyl phthalate	84-66-2	1-<10
d-Limonene	5989-27-5	1-<10
Galaxolide	1222-05-5	1-<10
Fragrance ingredients present at non-hazardous concentrations	-	to 100

4. FIRST AID MEASURES**Description of first aid measures**

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
Emergency telephone number	
Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms occur.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms Irritation. May cause allergic skin reaction. Redness. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization by skin contact. Treat symptomatically.

5. FIRE FIGHTING MEASURES**Suitable Extinguishing Media**

Suitable Extinguishing Media Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal protein foam can be used.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the Combustible liquid. On burning will emit toxic fumes, including those of oxides of carbon. In

chemical the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous combustion products Oxides of carbon.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Hazchem code •3Z

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Shut off ignition sources. Clear area of all unprotected personnel. Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Refer to protective measures listed in Sections 7 and 8. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Remove ignition sources. Provide adequate ventilation. Do not touch or walk through spilled material. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Obtain special instructions before use. Avoid breathing vapors or mists. Avoid contact with skin, eyes, and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use personal protection equipment. Handle in accordance with good industrial hygiene and safety practice. Use according to package label instructions. Do not handle until all safety precautions have been read and understood. Not to be used by pregnant workers and workers who have recently given birth or who are breastfeeding.

General hygiene considerations Avoid contact with skin, eyes, and clothing. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep container closed when not in use. Store away from incompatible materials described in Section 10. Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.
Incompatible materials	Oxidizing agents.
Poisons Schedule (SUSMP)	None allocated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Diethyl phthalate: 8hr TWA = 5 mg/m³

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.



Eye/face protection	Glasses.
Skin and body protection	Wear suitable protective clothing. Boots. Overalls.
Hand protection	Impervious gloves.
Respiratory protection	If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Pale Yellow to Yellow
Odor	Citrus , Green , Fresh
Odor threshold	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	
Flash point	91 °C	CC (closed cup)
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Relative density	0.9700 - 0.9900 @20°C	
Water solubility	No data available	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Refractive Index	1.4465 - 1.4665 @20°C
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10. STABILITY AND REACTIVITY

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Heat, flames and sparks. Static discharge (electrostatic discharge). Direct sunlight.

Incompatible materials

Incompatible materials Oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

Inhalation May cause irritation.

Eye contact May cause irritation.

Skin contact Causes skin irritation. May cause sensitization by skin contact.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms Irritation. May cause allergic skin reaction. Redness. Rashes. Hives.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) >5000 mg/kg

Numerical measures of toxicity - Component Information

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Citral	= 4960 mg/kg (Rat)	= 2250 mg/kg (Rabbit)	-

1,6-Octadien-3-ol, 3,7-dimethyl- (Linalool)	= 2790 mg/kg (Rat)	= 5610 mg/kg (Rat)	-
2-methyl-3-(4-tert.-butylphenyl)-propanal (Lilial)	= 1390 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 1802 mg/m ³ (Rat) 4 h
Diethyl phthalate	= 8600 mg/kg (Rat)	> 11200 mg/kg (Rat)	> 4.64 mg/L (Rat) 6 h
d-Limonene	= 5200 mg/kg (Rat) = 4400 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Galaxolide	> 3250 mg/kg (Rat)	> 3250 mg/kg (Rabbit)	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes skin irritation. Classification is based on mixture calculation methods based on component data.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	May cause sensitization by skin contact. Classification is based on mixture calculation methods based on component data.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	Suspected of damaging fertility or the unborn child. Classification is based on mixture calculation methods based on component data.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity Avoid contaminating waterways. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Citral	EC50: =16mg/L (72h, <i>Desmodesmus subspicatus</i>) EC50: =19mg/L (96h, <i>Desmodesmus subspicatus</i>)	LC50: 4.6 - 10mg/L (96h, <i>Leuciscus idus</i>)	-	EC50: =7mg/L (48h, <i>Daphnia magna</i>)
1,6-Octadien-3-ol, 3,7-dimethyl- (Linalool)	EC50: =88.3mg/L (96h, <i>Desmodesmus subspicatus</i>)	LC50: =27.8mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 22 - 46mg/L (96h, <i>Leuciscus idus</i>)	-	EC50: =20mg/L (48h, <i>Daphnia magna</i>)
2-methyl-3-(4-tert.-butylphenyl)-propanal (Lilial)	-	LC50: 2.2 - 4.6mg/L (96h, <i>Brachydanio rerio</i>)	-	EC50: =10.7mg/L (48h, <i>Daphnia magna</i>)
Diethyl phthalate	EC50: =23mg/L (72h,	LC50: =17mg/L (96h,	-	EC50: 36 - 74mg/L (48h,

	Desmodesmus subspicatus) EC50: =21mg/L (96h, Desmodesmus subspicatus) EC50: 42 - 255mg/L (72h, Pseudokirchneriella subcapitata) EC50: 2.11 - 4.29mg/L (96h, Pseudokirchneriella subcapitata)	Pimephales promelas) LC50: =16.8mg/L (96h, Pimephales promelas) LC50: =22mg/L (96h, Lepomis macrochirus) LC50: =16.7mg/L (96h, Lepomis macrochirus) LC50: =12mg/L (96h, Oncorhynchus mykiss)		Daphnia magna) EC50: =86mg/L (48h, Daphnia magna)
d-Limonene	-	LC50: 0.619 - 0.796mg/L (96h, Pimephales promelas) LC50: =35mg/L (96h, Oncorhynchus mykiss)	-	-

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
Citral	2.76
1,6-Octadien-3-ol, 3,7-dimethyl- (Linalool)	2.84 - 3.1
2-methyl-3-(4-tert.-butylphenyl)-propanal (Lilial)	4.2
Diethyl phthalate	2.35
d-Limonene	4.23

Mobility

Mobility in soil No information available.

Other adverse effects**Endocrine Disruptor Information**

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Diethyl phthalate	Group III Chemical	-	-

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION**ADG**

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and

Rail; DANGEROUS GOODS.

UN number 3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS D-LIMONENE AND GALAXOLIDE)
Hazard class 9
Packing group III
Special Provisions 274; 331; 335; 375; AU01
Hazchem code *3Z

IATA

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN number 3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS D-LIMONENE AND GALAXOLIDE)
Transport hazard class(es) 9
Packing group III

IMDG

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN number 3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS D-LIMONENE AND GALAXOLIDE)
Transport hazard class(es) 9
Packing group III
IMDG EMS Fire F-A
IMDG EMS Spill S-F
Marine pollutant Yes

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

Poisons Schedule (SUSMP) None allocated

National pollutant inventory

Subject to reporting requirement

Chemical name	National pollutant inventory
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d-Limonene - 5989-27-5	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total
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International Inventories**AIIC**

All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

NZIoC

All the constituents of this material are listed on the New Zealand Inventory of Chemicals.

Legend:**AIIC - Australian Inventory of Industrial Chemicals****International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**16. OTHER INFORMATION****Reason(s) For Issue:** 5 Yearly Revised Primary SDS

Change in Formulation

Change in Hazardous Chemical Classification

Issuing Date: 29-Apr-2022

This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

Revision Note:

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

Key literature references and sources for data used to compile the SDS

EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australian Industrial Chemicals Introduction Scheme (AICIS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris and Australian Botanical Products.

End of Safety Data Sheet