

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

Recommended use of the chemical and restrictions on use

Recommended use Fragrances.

Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier

Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia
Street Address: 166 Totara Street
Mt Maunganui South
New Zealand

Telephone Number: +64 9 309 2528

Facsimile: +64 9 0508 366 364

For further information, please contact

Contact Point Product Safety Department

Emergency telephone number

Emergency Telephone 0 800 734 607 (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

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS Classification

SIGNAL WORD

Warning

Food Additives and Fragrance Materials (Combustible) Group Standard 2020

Approval Number: HSR002574

Flammable liquids	Category 4
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

Label elements**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
H373 - May cause damage to organs through prolonged or repeated exposure
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
Wear protective gloves / protective clothing / eye protection / face protection
Wash hands thoroughly after handling
Avoid breathing dust / fume / gas / mist / vapours / spray
Contaminated work clothing should not be allowed out of the workplace
Do not handle until all safety precautions have been read and understood
Avoid release to the environment

Precautionary Statements - Response

Specific treatment (see First aid on this SDS)
Get medical advice/attention if you feel unwell
If exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of water and soap
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

No information available.

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

Chemical name	CAS No.	Weight-%
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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
10-Undecenal	112-45-8	0.1-<1
Fragrance ingredients present at non-hazardous concentrations	-	to 100

4. FIRST AID MEASURES

Description of first aid measures

Emergency telephone number	Poisons Information Center, New Zealand: 0800 764 766 Poisons Information Center, Australia: 13 11 26
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 for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
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 chemical Combustible liquid. On burning will emit toxic fumes, including those of oxides of carbon. In 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	Ensure adequate ventilation. Evacuate personnel to safe areas. 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.
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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. 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.

Precautions to prevent secondary hazards

Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
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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. 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 and face 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 container tightly closed in a dry and well-ventilated place. Protect from sunlight. Keep container closed when not in use. Store away from incompatible materials (refer to SDS).
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Incompatible materials Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

Diethyl phthalate: WES-TWA 5 mg/m³

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

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.

Hand protection

Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Boots. Overalls.

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
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

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.**Acute toxicity****Numerical measures of toxicity****The following values are calculated based on chapter 3.1 of the GHS document**

ATEmix (oral) >5000 mg/kg

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)	-
10-Undecenal	> 5000 mg/kg (Rat)	> 5000 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	May cause damage to organs through prolonged or repeated exposure. Classification is based on mixture calculation methods based on component data.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

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

Terrestrial ecotoxicity There is no data for this product.

Chemical name	EarthWorm	Avian	Honeybees
Diethyl phthalate	LC50 0.66 - 1.09 mg/cm2 (Eisenia foetida 48 h filter paper)	-	-

Chemical name	Algae/aquatic plants	Fish	Crustacea
Citral	EC50: =16mg/L (72h, Desmodemus subspicatus) EC50: =19mg/L (96h, Desmodemus subspicatus)	LC50: 4.6 - 10mg/L (96h, Leuciscus idus)	EC50: =7mg/L (48h, Daphnia magna)
1,6-Octadien-3-ol, 3,7-dimethyl- (Linalool)	EC50: =88.3mg/L (96h, Desmodemus subspicatus)	LC50: =27.8mg/L (96h, Oncorhynchus mykiss) LC50: 22 - 46mg/L (96h, Leuciscus idus)	EC50: =20mg/L (48h, Daphnia magna)
2-methyl-3-(4-tert.-butylphenyl)-propanal (Lilial)	-	LC50: 2.2 - 4.6mg/L (96h, Brachydanio rerio)	EC50: =10.7mg/L (48h, Daphnia magna)
Diethyl phthalate	EC50: =23mg/L (72h, Desmodemus subspicatus) EC50: =21mg/L (96h, Desmodemus subspicatus) EC50: 42 - 255mg/L (72h, Pseudokirchneriella subcapitata) EC50: 2.11 - 4.29mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =17mg/L (96h, 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)	EC50: 36 - 74mg/L (48h, 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)	
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Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation No information available.

Mobility

Mobility in soil 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

Other adverse effects

Other adverse effects No information available.

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**

Dispose of product in packaging/container in a way that is consistent with the Hazardous Substances (Disposal) Notice 2017 and the Act, and Hazardous Substances (Amendments and Revocations) Notice 2020. Treat the chemical using a method that changes the characteristics or composition of the chemical so that the chemical is no longer a hazardous chemical; or export the chemical from New Zealand as waste. Class 9 chemical, if the chemical, or if it contains a component that is bioaccumulative and not rapidly degradable, then any component that is bioaccumulative and not rapidly degradable must be removed. The product may only be discharged into the environment if an environmental exposure limit has been set for the chemical (or a component of the chemical); and the discharge does not, after reasonable mixing, result in the concentration of the substance in an environmental medium exceeding the environmental exposure limit.

Contaminated packaging

For packages that have been in direct contact with hazardous chemicals, the person must ensure that the package is rendered incapable of containing any chemical. It must be disposed of in a manner that is consistent with the requirements for disposal of the chemical that it contained, taking into account the material the package is manufactured from. Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous chemical (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the chemical to be classified as hazardous (class 6, 8, or 9 chemical).

14. TRANSPORT INFORMATION

<u>ROAD AND RAIL TRANSPORT</u>	Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; 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
<u>IATA</u>	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
<u>IMDG</u>	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

New Zealand

National regulations See section 8 for national exposure control parameters

International Inventories

NZIoC All the constituents of this material are listed on the New Zealand Inventory of Chemicals.
TSCA Contact supplier for inventory compliance status.
DSL/NDL Contact supplier for inventory compliance status.
EINECS/ELINCS Contact supplier for inventory compliance status.
ENCS Contact supplier for inventory compliance status.
IECSC Contact supplier for inventory compliance status.
KECL Contact supplier for inventory compliance status.
PICCS Contact supplier for inventory compliance status.
AIIC All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

Legend:

NZIoC - New Zealand Inventory of Chemicals

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 Chemical Substances/European 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
AIC - 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

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

Issuing Date: 29-Apr-2022

Reason(s) For Issue: 5 Yearly Revised Primary SDS
Change in Formulation
Change in Hazardous Chemical Classification

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

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(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