SAFETY DATA SHEET



Revision date: 14-Oct-2022

Revision Number 2

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier

Product Name LEMON 00211AC

Product Code(s) 000000025824

Other means of identification

UN number 1266

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).

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

Flammable liquids	Category 3
Aspiration hazard	Category 1
Skin corrosion/irritation	Category 2

Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

SIGNAL WORD

Danger

Label elements

Flame Health hazard Corrosion Exclamation mark



Hazard statements

H226 - Flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

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

Avoid breathing dust / fume / gas / mist / vapours / spray

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical, ventilating, lighting equipment

Use only non-sparking tools

Take action to prevent static discharges

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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

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. Keep cool

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other hazards which do not result in classification

Toxic to aquatic life

May be harmful if swallowed

Poisons Schedule (SUSMP)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%
Citral	5392-40-5	10-<30
d-Limonene	5989-27-5	10-<30
Lemongrass oils	8007-02-1	1-<10
Lemon oil	8008-56-8	1-<10
Coumarin	91-64-5	1-<10
2-Propenal, 3-phenyl-	104-55-2	1-<10
Citronellal	106-23-0	1-<10
2,6-Octadien-1-ol, 3,7-dimethyl-, (E)- (Geraniol)	106-24-1	1-<10
Geranyl acetate	105-87-3	1-<10
2-Propenoic acid, 3-phenyl-, methyl ester	103-26-4	1-<10
Ingredients determined not to be hazardous	-	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.

Inhalation Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is

irregular or stopped, administer artificial respiration. Call a physician if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately if symptoms occur.

Skin contactWash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. If skin irritation persists, call a physician.

Ingestion Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious

person. Do NOT induce vomiting. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER

LUNGS AND CAUSE DAMAGE. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Irritation. May cause redness and tearing of the eyes. May cause allergic skin reaction.

Redness. Rashes. Hives. Aspiration risk: may cause lung damage if swallowed.

Indication of any immediate medical attention and special treatment needed

Note to physicians Can cause corneal burns. May cause sensitization by skin contact. Delayed pulmonary

edema may occur. 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 CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Specific hazards arising from the

chemical

Flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Environmentally hazardous. 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 •3Y

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Ensure

adequate ventilation. Do not touch or walk through spilled material. Keep people away from and upwind of spill/leak. Use personal protective equipment as required. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used

when handling the product must be grounded.

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. Do not allow to enter into soil/subsoil.

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. Do not touch or walk through spilled material. A vapor

suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Remove ignition sources. Provide adequate ventilation. Absorb or cover with dry earth, sand or other non-combustible

material and transfer to containers.

Methods for cleaning up Slippery when spilt. Avoid accidents, clean up immediately. 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

Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Use with local exhaust ventilation. Keep in an area equipped with sprinklers. Take off contaminated clothing and wash before reuse. Wash thoroughly after handling. Use personal protection equipment. Use according to package label instructions. Keep out of reach of children.

General hygiene considerations

Do not eat, drink or smoke when using this product. 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. Avoid contact with skin, eyes, and clothing. Wear suitable gloves and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not store near combustible materials. Keep in an area equipped with sprinklers. Store away from incompatible materials described in Section 10. Keep in properly labelled containers. Store away from foodstuffs. Protect from direct sunlight. Store in accordance with local regulations. Store in accordance with the particular national regulations.

This material is a Scheduled Poison and must be stored, maintained and used in accordance with the relevant regulations.

Incompatible materials

Oxidizing agents.

Poisons Schedule (SUSMP)

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls

Engineering controls

Ensure adequate ventilation, especially in confined areas. Eyewash stations.

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, CHEMICAL GOGGLES, GLOVES.









Eye/face protection Tight sealing safety goggles.

Wear suitable protective clothing. Antistatic boots. Overalls. Skin and body protection

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.

No information available. **Environmental exposure controls**

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid **Appearance** Clear

Color Pale Yellow to Yellow Citrus, Floral, Sweet Odor No information available. **Odor threshold**

Property **Values** Remarks • Method

Not Applicable Hq None known pH (as aqueous solution) No data available None known Melting point / freezing point No data available None known No data available Boiling point / boiling range None known Flash point 49 °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 No data available

limits

Lower flammability or explosive No data available

limits

Vapor pressure No data available None known Vapor density No data available None known 0.923 - 0.943 @20°C Relative density None known Water solubility Immiscible in water None known Solubility(ies) No data available None known None known **Partition coefficient** No data available **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known Dynamic viscosity No data available None known

Other information

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 Heating can cause expansion or decomposition of the material, which can lead to the

containers exploding.

Conditions to avoid

Conditions to avoid Heat, flames and sparks. Static discharge (electrostatic discharge). Avoid contact with

combustible substances. Direct sunlight. Do not contaminate food or feed stuffs.

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 InformationNo 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 Causes serious eye damage. May cause irreversible damage to eyes.

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

Ingestion May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea,

vomiting and diarrhoea. May be harmful if swallowed and enters airways. Aspiration may

cause pulmonary edema and pneumonitis.

Symptoms Irritation. May cause redness and tearing of the eyes. May cause allergic skin reaction.

Redness. Rashes. Hives. Aspiration risk: may cause lung damage if swallowed.

Numerical measures of toxicity - Product Information

ATEmix (oral) >2000 mg/kg (calculated, based on data from components)

Component Information

Chemical name Oral LD50 Dermal	LD50 Inhalation LC50
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d-Limonene	= 5200 mg/kg (Rat) = 4400 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
	= 4400 mg/kg (Nat)		
Lemongrass oils	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Lemon oil	= 2840 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
2-Propenal, 3-phenyl-	= 2220 mg/kg (Rat)	= 1260 mg/kg (Rabbit)	-
Citronellal	= 2420 mg/kg (Rat)	> 2.5 g/kg(Rabbit)> 2500 mg/kg(Rabbit)	-
2-Propenoic acid, 3-phenyl-, methyl ester	= 2610 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 Causes serious eye damage. Classification is based on mixture calculation methods based

on component data.

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 No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard May be fatal if swallowed and enters airways. Risk of serious damage to the lungs (by

aspiration).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity Keep out of waterways. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Citral	EC50: =16mg/L (72h, Desmodesmus subspicatus) EC50: =19mg/L (96h, Desmodesmus subspicatus)	LC50: 4.6 - 10mg/L (96h, Leuciscus idus)	-	EC50: =7mg/L (48h, Daphnia magna)
d-Limonene	-	LC50: 0.619 - 0.796mg/L (96h, Pimephales promelas) LC50: =35mg/L (96h, Oncorhynchus mykiss)	-	-
2-Propenoic acid,	-	LC50: =2.76mg/L (96h,	-	-

3-phenyl-, methyl ester Danio rerio)

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
Citral	2.76
d-Limonene	4.23
2-Propenal, 3-phenyl-	2.22

Mobility

Mobility in soil No information available.

Other adverse effects

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused Should not be released into the environment. Dispose of in accordance with local

products 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

<u>ADG</u>

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 1266

Proper shipping name PERFUMERY PRODUCTS

Hazard class 3
Packing group III
Special Provisions 223, 163
Hazchem code •3Y

<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 1266

UN proper shipping name PERFUMERY PRODUCTS

Transport hazard class(es) 3
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 1266

UN proper shipping name PERFUMERY PRODUCTS

Transport hazard class(es)

Packing group

IMDG EMS Fire

F-E

IMDG EMS Spill

Marine pollutant

Solution

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).

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

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule (SUSMP)

Major hazard (accident/incident planning) regulation

Verify that license requirements are met

Liquids that meet the criteria for Class 3 Packing Group II or III

National pollutant inventory

Subject to reporting requirement

Subject to reporting requirement	
Chemical name	National pollutant inventory
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 toppe/vr Threshold category 2h total

50 000

International Inventories

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

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 Hazardous Chemical Classification

Issuing Date: 14-Oct-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