SAFETY DATA SHEET

Revision date: 20-Jan-2023

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier VERBENA NAT (FYIA01149AC) **Product Name** Product Code(s) 00000026715 Other means of identification 1197 **UN number** Pure substance/mixture Mixture Recommended use of the chemical and restrictions on use Recommended use Fragrances. Uses advised against No information available. Supplier

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Emergency telephone number

Emergency telephone number

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.

1 800 033 111 (ALL HOURS)

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



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

SIGNAL WORD Danger

Label elements



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

H319 - Causes serious eye irritation

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

Wash face, hands and any exposed skin thoroughly after handling 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 only non-sparking tools Take precautionary measures against static discharge Use explosion-proof electrical, ventilating, lighting equipment Contaminated work clothing should not be allowed out of the workplace Wear protective gloves / protective clothing / eye protection / face protection In case of inadequate ventilation wear respiratory 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 If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of soap and water IF ON SKIN (or hair): Remove/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 Avoid breathing vapour or spray mist. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting In case of fire: Use CO2, dry chemical, or foam for extinction 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 5

Poisons Schedule (SUSMP)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%
Litsea cubeba oil	68855-99-2	30-60
Citral	5392-40-5	10-<30
d-Limonene	5989-27-5	1-<10
Oils, nutmeg	8008-45-5	1-<10
D,L-Citronellol	106-22-9	1-<10
2,6-Octadien-1-ol, 3,7-dimethyl-, (E)- (Geraniol)	106-24-1	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. Show this safety data sheet to the doctor in attendance.	
Inhalation	Remove to fresh air. 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 if symptoms occur.	
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician if symptoms occur.	
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.	
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. See section 8 for more information.	
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	Treat symptomatically. Delayed pulmonary edema may occur. May cause sensitization by skin contact.	

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Foam. Dry chemical or CO2.

Unsuitable extinguishing media		
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. 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. Environmentally hazardous.	
Hazardous combustion products	Carbon oxides.	
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	Evacuate personnel to safe areas. Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. 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. Do not touch or walk through spilled material. See section 8 for more information.	
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.	
For emergency responders	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.	
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. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.	
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Use non-sparking tools.	

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Avoid contact with skin, eyes, and clothing. Do not eat, drink or smoke when using this product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use

General hygiene considerations	grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. 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, includi	ng any incompatibilities
Storage Conditions	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). Keep in properly labelled containers. Keep in an area equipped with sprinklers. Store away from foodstuffs. Keep out of the reach of children.
	This material is a Scheduled Poison and must be stored, maintained and used in accordance with the relevant regulations.
Incompatible materials	Strong oxidizing agents.
Poisons Schedule (SUSMP)	5

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.

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.



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 Floral Spicy	
Odor threshold	No information available.	

Property	<u>Values</u>	Remarks • Method
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	60°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	
Vapor density	No data available	
Relative density	0.9230-0.9430 @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
· · ·	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	INU UALA AVAIIADIE	NOTE KIOWI

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	None under normal processing.	

Conditions to avoid	
Conditions to avoid	Heat, flames and sparks. Direct sunlight. Do not contaminate food or feed stuffs.
Incompatible materials	
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	

Hazardous decomposition products Carbon oxides.

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	Causes serious eye irritation.
Skin contact	Irritating to skin. May cause sensitization by skin contact.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
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

No information available.

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 irritation. 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.

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)	<u>-</u>	EC50: =7mg/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	
d-Limonene	4.23	

Mobility

Mobility in soil

No information available.

Other adverse effects

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.

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	1197
Proper shipping name	EXTRACTS, LIQUID, for flavour or aroma
Hazard class	3
Packing group	III
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	1197
UN proper shipping name	EXTRACTS, LIQUID, for flavour or aroma
Transport hazard class(es)	3
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	1197
UN proper shipping name	EXTRACTS, LIQUID, for flavour or aroma
Transport hazard class(es)	3
Packing group	III
IMDG EMS Fire	F-E
IMDG EMS Spill	S-D
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).

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)5

Major hazard (accident/incident planning) regulation

Verify that license requirements are met <u>Hazardous chemical</u> Liquids that meet the criteria for Class 3 Packing Group II or III

Threshold quantity (T) 50 000

National pollutant inventory

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 tonne/yr Threshold category 2b total	

International Inventories AIIC

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: Change to Transport Information Change in UN Number Change in Proper Shipping Name

Issuing Date:

20-Jan-2023

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
Ceiling	Maximum limit value	*
С	Carcinogen	

STEL (Short Term Exposure Limit) Skin designation

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 lxom 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