SAFETY DATA SHEET

Revision date: 03-May-2023

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

| Product identifier | | | |
|---|---|--|--|
| Product Name | GINGER FLAVOUR NAT E49834 (FAGIN49834) | | |
| Product Code(s) | 00000026997 | | |
| Other means of identification | | | |
| UN number | 1197 | | |
| Recommended use of the chemical | Recommended use of the chemical and restrictions on use | | |
| Recommended use | Flavour. | | |
| Uses advised against | No information available | | |
| Supplier Ixom Operations Pty Ltd (Bronson & Ja ABN:51 600 546 512 70 Marple Avenue Villawood NSW 2163 Australia Telephone Number: +61 2 8717 2929 Facsimile: +61 2 9755 9611 | acobs division) - incorporated in Australia | | |

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 2 |
|-----------------------------------|------------|
| Serious eye damage/eye irritation | Category 2 |
| Skin sensitization | Category 1 |
| Acute aquatic toxicity | Category 3 |
| Chronic aquatic toxicity | Category 3 |





SIGNAL WORD Danger

Label elements

Flame Exclamation mark



Hazard statements

H225 - Highly flammable liquid and vapor H319 - Causes serious eye irritation H317 - May cause an allergic skin reaction

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations: H412 - Harmful 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 Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical, ventilating, lighting equipment Use only non-sparking tools Take precautionary measures against static discharge Avoid breathing dust / fume / gas / mist / vapours / spray Wear protective gloves / protective clothing / eye protection / face protection Wash hands thoroughly after handling Contaminated work clothing should not be allowed out of the workplace 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 (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower If skin irritation or rash occurs: Get medical advice/attention In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish. **Precautionary Statements - Storage** Store in a well-ventilated place. Keep cool **Precautionary Statements - Disposal** Dispose of contents/container to an approved waste disposal plant Other hazards which do not result in classification Poisons Schedule (SUSMP) None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>

| Chemical name | CAS No. | Weight-% |
|-------------------------|-----------|----------|
| Ethyl alcohol (Ethanol) | 64-17-5 | >60 |
| Oils, ginger | 8007-08-7 | 1-10 |

4. 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. 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. 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. Get medical attention if symptoms occur. |
| 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. Use personal protective equipment as required. See section 8 for more information. |
| Most important symptoms and effe | ects, both acute and delayed |
| Symptoms | Irritation. May cause redness and tearing of the eyes. May cause allergic skin reaction. Redness. Rashes. Hives. |
| Indication of any immediate medica | al attention and special treatment needed |
| | |
| Note to physicians | May cause sensitization by skin contact. Treat symptomatically. |
| - | May cause sensitization by skin contact. Treat symptomatically. |
| Note to physicians | May cause sensitization by skin contact. Treat symptomatically. |
| Note to physicians 5. FIRE FIGHTING MEASU | May cause sensitization by skin contact. Treat symptomatically. |
| Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media | May cause sensitization by skin contact. Treat symptomatically. |
| Note to physicians 5. FIRE FIGHTING MEASU <u>Suitable Extinguishing Media</u> Suitable Extinguishing Media | May cause sensitization by skin contact. Treat symptomatically. RES Foam. Carbon dioxide (CO2). Dry chemical. CAUTION: Use of water spray when fighting fire may be inefficient. |
| Note to physicians 5. FIRE FIGHTING MEASU <u>Suitable Extinguishing Media</u> Suitable Extinguishing Media Unsuitable extinguishing media | May cause sensitization by skin contact. Treat symptomatically. RES Foam. Carbon dioxide (CO2). Dry chemical. CAUTION: Use of water spray when fighting fire may be inefficient. |
| Note to physicians 5. FIRE FIGHTING MEASU <u>Suitable Extinguishing Media</u> Suitable Extinguishing Media Unsuitable extinguishing media <u>Specific hazards arising from the c</u> Specific hazards arising from the | May cause sensitization by skin contact. Treat symptomatically. RES Foam. Carbon dioxide (CO2). Dry chemical. CAUTION: Use of water spray when fighting fire may be inefficient. hemical Highly 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. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local |
| Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media Suitable Extinguishing Media Unsuitable extinguishing media Specific hazards arising from the chemical | May cause sensitization by skin contact. Treat symptomatically. RES Foam. Carbon dioxide (CO2). Dry chemical. CAUTION: Use of water spray when fighting fire may be inefficient. hemical Highly 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. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Oxides of carbon. |

Hazchem code 3YE

Revision Number 1

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. See section 8 for more information. 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. |
|-----------------------------------|---|
| 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. Refer to protective measures listed in Sections 7 and 8. Prevent product from entering drains. |
| Methods and material for containm | ent 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. |

7. HANDLING AND STORAGE

Precautions for safe handling

| Advice on safe handling | Avoid contact with skin and eyes. Avoid breathing vapors or mists. Use personal protection equipment. 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 with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. |
|-------------------------------------|---|
| 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. |
| Conditions for safe storage, includ | ing 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. Do not store near combustible materials. Protect from direct sunlight. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. |
| 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):

| Chemical name | Australia | ACGIH TLV |
|-------------------------|--|-----------|
| Ethyl alcohol (Ethanol) | 8hr TWA: 1880 mg/m ³ (1000 ppm) | |
| 64-17-5 | | |

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

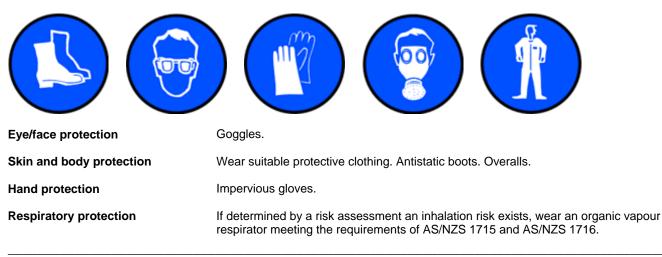
Engineering controls Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

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, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.



Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Information on basic physical and chemical properties | |
|---|--|
| Physical state | Liquid |
| Appearance | No information available |
| Color | Dark Yellow to Brown |
| Odor | Characteristic aroma and flavour of Ginger |
| Odor threshold | No information available |

| Property_ | <u>Values</u> | Remarks • Method |
|---------------------------------|-----------------------|------------------|
| рН | No data available | None known |
| pH (as aqueous solution) | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash point | 16 °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 |
| Relative density | 0.8011 - 0.8411 @20°C | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| 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 impac | t 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). Avoid contact with combustible substances. Direct sunlight. |
| Incompatible materials | |
| Incompatible materials | Oxidizing agents. |
| Hazardous decomposition products | |
| Hazardous decomposition products | s 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 | Causes serious eye irritation. |
| Skin contact | May cause irritation. May cause sensitization by skin contact. |
| Ingestion | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache). |
| Symptoms | Irritation. May cause redness and tearing of the eyes. May cause allergic skin reaction. Redness. Rashes. Hives. |

Numerical measures of toxicity - Product Information No information available

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------|----------------------|----------------------|-------------------------|
| Ethyl alcohol (Ethanol) | = 7060 mg/kg (Rat) | - | = 124.7 mg/L (Rat) 4h |
| Oils, ginger | >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 | No information available. |
|-----------------------------------|--|
| 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 | No information available. |
| Chronic effects: | A study of the effects of ethanol inhalation in humans found that at between 5000-10000 ppm subjects experienced coughing and smarting of the eyes and nose, with symptoms disappearing within minutes. People exposed at 15000 ppm experienced continuous lacrimation and coughing. Irritation of the eyes and respiratory tract were not noted at concentrations below 5000 ppm. For Ethanol: Repeated or prolonged exposure to this material could result in effects on the liver, kidneys, gastrointestinal tract, and heart muscle. Ethanol may cause adverse reproductive effects. Ingestion by pregnant women may cause serious effects in their newborn babies called 'foetal alcohol syndrome'. |

12. ECOLOGICAL INFORMATION

| Ecotoxicity | | |
|--|---------------------------|--|
| Ecotoxicity | Avoid contaminating water | ways. Harmful to aquatic life with long lasting effects. |
| Persistence and degradability Persistence and degradability | No information available. | |
| Bioaccumulative potential | | |
| Bioaccumulation | No information available. | |
| Component Information | | |
| Chemical na | ame | Partition coefficient |
| Ethyl alcohol (E | thanol) | -0.32 |
| Mobility | | |
| Mobility in soil | No information available. | |

Other adverse effects

Other adverse effects

No information available.

| 13. DISPOSAL | CONSIDER | ATIONS |
|--------------|----------|--------|
|--------------|----------|--------|

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 | 1197 |
|----------------------|------------------------------|
| Proper shipping name | EXTRACTS, FLAVOURING, LIQUID |
| Hazard class | 3 |
| Packing group | II |
| Hazchem code | 3YE |

<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, FLAVOURING, LIQUID |
| Transport hazard class(es) | 3 |
| Packing group | II |

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 UN proper shipping name | 1197 EXTRACTS, FLAVOURING, LIQUID |
|--------------------------------------|--------------------------------------|
| Transport hazard class(es) | 3 |
| Packing group | 11 |
| IMDG EMS Fire | F-E |
| IMDG EMS Spill | S-D |

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

<u>Australia</u>

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

Poisons Schedule (SUSMP) None allocated

Major hazard (accident/incident planning) regulation

Verify that license requirements are met

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

National pollutant inventory

Subject to reporting requirement

Threshold quantity (T) 50 000

Revision Number 1

| Chemical name | National pollutant inventory |
|-----------------------------------|----------------------------------|
| Ethyl alcohol (Ethanol) - 64-17-5 | 10 tonne/yr Threshold category 1 |

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: First Issue Primary SDS

Issuing Date: 03-May-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 | on 8: EXPOSURE CONTROLS/PERSONAL | <u>_ PROTECTION</u> | |
|----------------|----------------------------------|---------------------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |
| С | 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