SAFETY DATA SHEET

Revision date: 06-Aug-2020

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

| Product identifier | | | | |
|---|---|--|--|--|
| Product Name | VANICE FLAVOUR SYN E49032 (FAVAN49032) | | | |
| Product Code(s) | 00000026342 | | | |
| Other means of identification | | | | |
| Proper shipping name | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | | | |
| UN number | 1170 | | | |
| Pure substance/mixture | Mixture | | | |
| Recommended use of the chemical | and restrictions on use | | | |
| Recommended use | Flavour. | | | |
| 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 She | | | | |

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 |
|-----------------------------------|-------------|
| Serious eye damage/eye irritation | Category 2A |



SIGNAL WORD Warning

Label elements

Flame Exclamation mark



Hazard statements H226 - Flammable liquid and vapor H319 - Causes serious eye irritation

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves / protective clothing / eye protection / face protection 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 **Precautionary Statements - Response**

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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
In case of fire: Use CO2, dry chemical, or foam for extinction
Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool
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 classificationPoisons Schedule (SUSMP)None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

| Chemical name | CAS No. | Weight-% |
|----------------------------|---------|----------|
| Ethyl alcohol | 64-17-5 | 30-60 |
| Non hazardous component(s) | - | to 100 |

4. FIRST AID MEASURES

Description of first aid measures

| General advice Show this safety data sheet to the doctor in attendance. | | |
|--|--|--|
| Emergency telephone number | Poisons Information Center, Australia: 13 11 26 Poisons Information Center, New Zealand: 0800 764 766 | |
| Inhalation | Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately. | |
| 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 irritation develops and persists. | |
| 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 effe | cts, both acute and delayed | |
| Symptoms | Irritation. | |
| Indication of any immediate medica | al attention and special treatment needed | |
| Note to physicians Treat symptomatically. | | |
| Note to physicians | real symptomatically. | |
| | · · · · | |
| 5. FIRE FIGHTING MEASU | · · · · | |
| | · · · · | |
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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. 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. Use personal protective equipment as required. 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 | | | |
| 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 | Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Take precautionary measures against static discharges. | | | |

7. HANDLING AND STORAGE

| Precautions for safe handling | | | |
|--|---|--|--|
| Advice on safe handling | Use personal protection equipment. 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 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. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink or smoke when using this product. | | |
| General hygiene considerations | Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. | | |
| Conditions for safe storage, including 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. | | |
| Incompatible materials | Strong oxidizing agents. | | |
| Poisons Schedule (SUSMP) | None allocated | | |

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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):

Ethyl alcohol: 8hr TWA = 1880 mg/m^3 (1000 ppm)

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 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.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

| Information on basic physical and chemical properties | | | | |
|---|---------------------------|------------------|--|--|
| Physical state | Liquid | | | |
| Appearance | No information available. | | | |
| Color | Dark brown | | | |
| Odor | Characteristic Vanilla | | | |
| Odor threshold | No information available. | | | |
| - | | | | |
| Property | <u>Values</u> | Remarks • Method | | |
| рН | No data available | None known | | |
| Melting point / freezing point | No data available | | | |
| Boiling point / boiling range | No data available | | | |
| Flash point | 25°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 | 0.9122-0.9522 | | | |
| Water solubility | Miscible in water | | | |
| 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

10. STABILITY AND REACTIVITY

| <u>Reactivity</u> | |
|---|--|
| 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. |
| Hazardous polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | |
| | |

Conditions to avoid Heat, flames and sparks.

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 central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. | |
| Eye contact | Causes serious eye irritation. (based on components). May cause redness, itching, and pain. | |
| Skin contact | Prolonged contact may cause redness and irritation. Prolonged skin contact may defat the skin and produce dermatitis. | |
| 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). May cause central nervous system depression. | |
| Symptoms | May cause redness and tearing of the eyes. | |
| Numerical measures of toxicity - Product Information No information available. | | |

Numerical measures of toxicity - Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|--------------------|-------------|-----------------------|
| Ethyl alcohol | = 7060 mg/kg (Rat) | - | = 124.7 mg/L (Rat)4 h |
| | | | |

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 | Not classified. 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 | Not classified. 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: | Repeated exposures in excess of the occupational exposure limits may cause degenerative changes in 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'. 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. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity

. Keep out of waterways.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to | Crustacea |
|---------------|----------------------|-------------------------|----------------|------------------------|
| | | | microorganisms | |
| Ethyl alcohol | - | LC50: 12.0 - 16.0mL/L | - | LC50: 9268 - 14221mg/L |
| | | (96h, Oncorhynchus | | (48h, Daphnia magna) |
| | | mykiss) LC50: >100mg/L | | EC50: =2mg/L (48h, |
| | | (96h, Pimephales | | Daphnia magna) EC50: |
| | | promelas) LC50: 13400 - | | =10800mg/L (24h, |
| | | 15100mg/L (96h, | | Daphnia magna) |
| | | Pimephales promelas) | | |

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation

No information available.

Component Information

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Ethyl alcohol | -0.32 |

<u>Mobility</u>

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 | 1170 |
|----------------------|---|
| Proper shipping name | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| Hazard class | 3 |
| Packing group | III |
| Hazchem code | •2Y |

ΙΑΤΑ

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 | 1170 |
|----------------------------|------------------|
| UN proper shipping name | ETHANOL SOLUTION |
| Transport hazard class(es) | 3 |
| Packing group | 111 |

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 | 1170 |
|----------------------------|---|
| UN proper shipping name | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| Transport hazard class(es) | 3 |
| Packing group | III |
| 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 |
|--------------------|--------|----------------|
| Hazardous chemical | | |

Threshold quantity (T)

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

50 000

National pollutant inventory

| Subject to reporting requirement | |
|----------------------------------|----------------------------------|
| Chemical name | National pollutant inventory |
| Ethyl alcohol - 64-17-5 | 10 tonne/yr Threshold category 1 |

International Inventories

AICS

All the constituents of this material are listed on the Australian Inventory of Chemical Substances.

Legend:

AICS - Australian Inventory of Chemical Substances

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: 06-Aug-2020

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 P | ROTECTION | |
|------------------|--------------------------------|-----------|----------------------------------|
| 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 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) 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.

End of Safety Data Sheet