SAFETY DATA SHEET

Revision date: 13-Dec-2021

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier	
Product Name	JUNIPER BERRY FLAVOUR NATURAL E49484 (FAJUN49484)
Product Code(s)	00000026734
Other means of identification	
UN number	1197
Recommended use of the chemical	and restrictions on use
Recommended use	Food 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

SIGNAL WORD

B



Danger

Label elements

Flame Exclamation mark

Hazard statements

H225 - Highly flammable liquid and vapor 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: 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 only non-sparking tools Take precautionary measures against static discharge Use explosion-proof electrical, ventilating, lighting equipment Avoid breathing dust / fume / gas / mist / vapours / spray Wash hands and face 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 If eve irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of water and soap 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 Take off contaminated clothing and wash it before reuse 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

<u>Mixture</u>

Chemical name	CAS No.	Weight-%
Ethyl alcohol	64-17-5	>60
Juniper oil	8002-68-4	1-<10
Non hazardous component(s)	-	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. Call a physician if symptoms occur.	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. 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	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 allergic skin reaction. Redness. Rashes. Hives.	
Indication of any immediate medical attention and special treatment needed		
Indication of any immediate medic	al attention and special treatment needed	
Indication of any immediate medic	al attention and special treatment needed May cause sensitization by skin contact.	
Note to physicians	May cause sensitization by skin contact.	
Note to physicians 5. FIRE FIGHTING MEASU	May cause sensitization by skin contact.	
Note to physicians	May cause sensitization by skin contact.	
Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media	May cause sensitization by skin contact.	
Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media	May cause sensitization by skin contact.	
Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media Suitable Extinguishing Media	May cause sensitization by skin contact. RES Alcohol resistant foam. Dry chemical. Carbon dioxide (CO2).	
Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media Suitable Extinguishing Media Unsuitable extinguishing media	May cause sensitization by skin contact. RES Alcohol resistant foam. Dry chemical. Carbon dioxide (CO2).	
Note to physicians 5. FIRE FIGHTING MEASU Suitable Extinguishing Media Suitable Extinguishing Media Unsuitable extinguishing media Specific hazards arising from the ofference of the second se	May cause sensitization by skin contact. RES Alcohol resistant foam. Dry chemical. Carbon dioxide (CO2). themical Risk of ignition. Highly flammable. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.	

Hazchem code

3YE

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. Do not touch or walk

	through spilled material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. Use personal protective equipment as required. See section 8 for more information.	
Other information	Ventilate the area.	
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.	

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid contact with skin and eyes. 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.
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.
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 64-17-5	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.



9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Colourless to Pale Yellow
Odor	Characteristic Juniper
Odor threshold	No information available.

Revision Number 1

Property	Values	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	0.7935-0.8335 @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

<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.
Conditions to avoid	
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	
Incompatible materials	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	Inhalation of vapors in high concentration may cause irritation of respiratory system.
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.
Symptoms	Irritation. May cause allergic skin reaction. Redness. Rashes. Hives.

Numerical measures of toxicity - Product Information

No information available.

Numerical measures of toxicity - Component Information

Chem	cal name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl	alcohol	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat)4 h
Jun	iper oil	= 6280 mg/kg (Rat)	> 5 g/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	Not classified. Classification is based on mixture calculation methods based on component data.
Serious eye damage/eye irritation	Irritating to eyes. 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:	For ethanol, prolonged exposure by inhalation or ingestion can result in liver damage. 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. Chronic overexposure to ethanol results in liver damage and poor general health. Repeated exposures have been shown to produce testicular effets in animal studies. High ethanol concentraions have been shown to produce reduced foetal body weights, increased resorptions and teratogenic effects in a number of species.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity

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

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

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, FLAVOURING, LIQUID
Hazard class	3
Packing group	II
Hazchem code	3YE

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	1197
UN proper shipping name	EXTRACTS, FLAVOURING, LIQUID
Transport hazard class(es)	3
Packing group	II

<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	1197
UN proper shipping name	EXTRACTS, FLAVOURING, LIQUID
Transport hazard class(es)	3
Packing group	II
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

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

Poisons Schedule (SUSMP) None allocated

<u>Hazardous chemical</u> 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	
Chemical name	National pollutant inventory	
Ethyl alcohol - 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

Revision Number 1

Chemicals.

Legend:

- 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: 13-Dec-2021

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/PERSONA	L PROTECTION	
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.

End of Safety Data Sheet